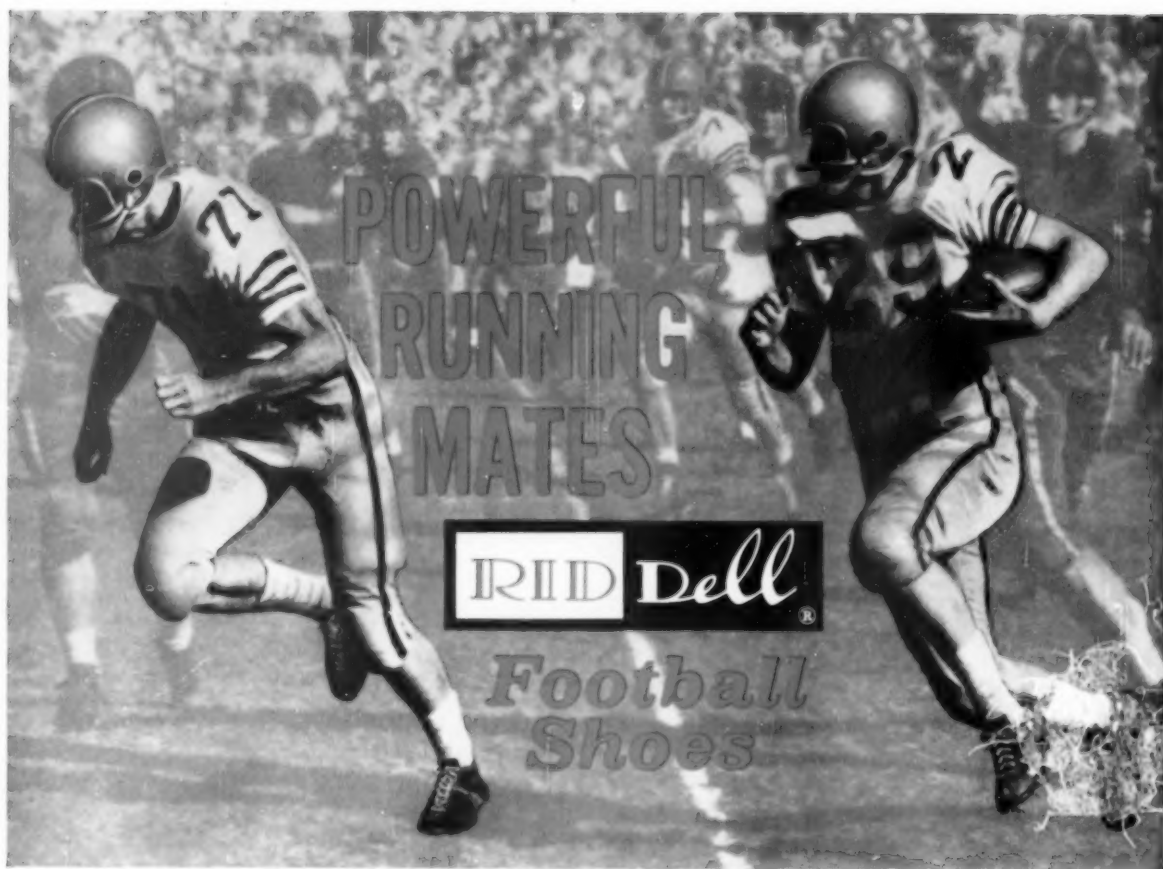


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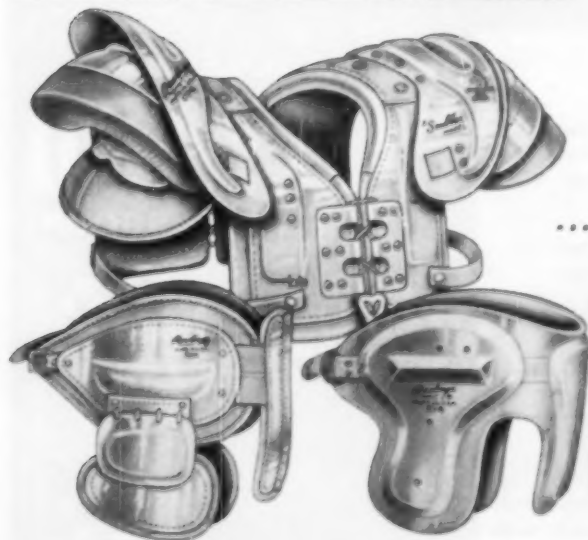
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BRANCHES AND WAREHOUSES IN PRINCIPAL CITIES

Advice and dissent

FROM the tone of many of our think pieces, we know that we often sound like one of those "angry (not so) young men" who are always making choleric sounds to attract attention. Our orneriness stems not from a congenital malcontentedness, but from a deep-rooted devotion to the amateur ideal.

How much good our critiques accomplish is hard to calculate. Reforms or changes of policy rarely come hard on the heels of an editorial. But we like to believe that we stimulate some thinking, perhaps sow a few seeds that may someday bear fruit.

So you can imagine how gratifying it was to learn that the NCAA, at its last meeting, framed a law that might have had its inception right here in this department!

Last June we delivered a broadside against those commercial all-star games that have been outrageously exploiting the high school athlete. Realizing that our high school associations were practically powerless to cope with the problem (since the all-star "classics" confine themselves to graduating seniors), we called upon the NCAA to frame a rule "making all participants in (unsanctioned high school games) ineligible for college play." This, we wrote, would "sound the death knell for all-star promotions."

One week after the June issue rolled off the press, we received a carbon of a letter that George L. Shiebler, Associate Commissioner of the ECAC, had dispatched to Walter Byers, Executive Director of the NCAA. It read:

"I am enclosing a photostat copy of the June *Scholastic Coach* editorial page. If you have not already had an opportunity to read the June issue, I hope you will read the editorial by Herman L. Masin touching on the over emphasis existing in All Star games . . ." In a personal note at the bottom, George added, "Excellent editorial. Wish

we could all get together in this matter."

Now let us quote the rule that the NCAA passed this January:

"He (the player) shall be denied the first year of varsity athletic competition if, following his graduation from high school and before his enrollment in college, he was a member of a squad which engaged in any all-star football or basketball contest which was not specifically approved by the appropriate state high school athletic association or, if interstate, by the National Federation of High School Athletic Associations or by the athletic associations of the states involved." (The italics are ours.)

Our editorial may not have been the prime mover in this new compound, but we like to think it served as a catalyst.

ONE of the more dismaying aspects of the NCAA's worthy efforts to straighten out and fly right is the obstructionism of the small schools. Weird as it sounds, it's the "haves"—the large schools—which are backing such progressive legislation as the national letter of intent, a national transfer rule, and the control of "red-shirting" by a rule limiting college athletes to competition within four calendar years.

We haven't seen any cogent reasons why the "have-nots"—the smaller schools—are opposed to these excellent proposals, though we have our suspicions.

WHY, oh why, do some of our high school basketball coaches continue to cheapen both their reputations and the game by contriving or abetting those spurious "scoring records?"

Every time we hear of a kid scoring 80, 90, 100, or even more points, we know darn well it was deliberately planned or certainly encouraged by the coach.

The two worst instances we heard

of last season were a 104-point and a 108-point scoring burst. In the first instance, the player tallied 104 of his team's 127 points, his club winning by 78 points. In the second case, the boy scored 108 of his team's 118 points in a 118-30 victory.

Beating a team by 78 or 88 points is shameful enough, but to keep letting a boy pile it on in such circumstances is worse. It's merely a cheap pitch for a headline—which the informed fan will instantly recognize as counterfeit.

Two years ago a kid named Danny Heater made such a headline by scoring 135 points "for a national scholastic record." Now let us refer to a recent column by A. L. Hardman in *The Charleston (W. Va.) Gazette*:

"Danny Heater, the Burnsville youth who made national sports news last winter by scoring 135 points in one basketball game, isn't going to college. Danny didn't get a college scholarship, his father is still unemployed and young Danny is working for a Burnsville firm to support his family.

"Danny achieved his amazing scoring feat against Widen High School. Coach Stalnaker said later that he encouraged Danny's point spree in the hope that it would attract a college offer for his player. Apparently it was to no avail, and it's a shame because Danny is a nice, deserving youngster who is caught up in unfortunate circumstances."

There's a certain rough justice about this. Whatever the coach's motive, however deserving the boy, there's simply no excuse for degrading an opponent and making a mockery of the game. If records are to serve as symbols of achievement, our coaches should refuse to resort to skulduggery to achieve them.

HAVING been around enough gridirons to have learned the facts of pigskin life, we realize that it takes a mountainous amount of

(Concluded on page 62)



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By **JACK STALLINGS**

Coach, Wake Forest College (N. C.)

THE double play is a life-saver to the pitcher, a ray of sunshine to the coach, a burst of joy to the fans, and a curse to the slow-footed runner.

High school, college, and professional players are constantly experimenting with quicker ways to make the pivot and throw to first. That's fine. But they often approach the problem from the wrong end.

The success of the double play usually lies, not in the pivot, but in the work of the front man—the feeder, the player who fields the ball and starts the play. A good pick up and feed can often make the pivot man's job rather routine and easy. On the other hand, a bad feed—off the target, too hard or too soft, or delayed—toughens the pivot and throw.

The feeder should first of all make sure to get the lead runner. The old cry of "make one man sure" has been heard around the infield since the days of Tinker to Evers to Chance. While he cannot afford to be slow in getting the ball away, the front man must take enough

(Continued on page 66)



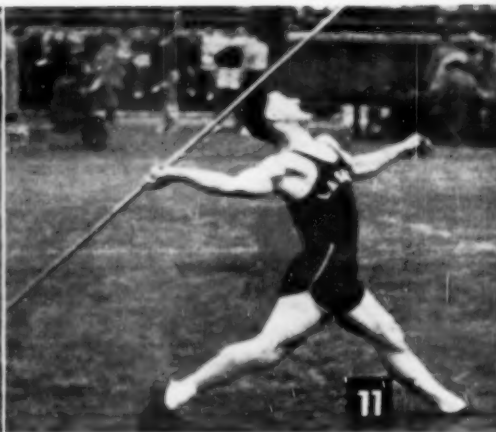
Half-pivot and throw by second baseman.

No. 1: THE FEEDING THROW

Double-Play Skills



Second baseman making a full pivot and throwing to the shortstop covering second.



By FRANK RYAN, Ph.D.

Track and Field Co-Coach, Yale University

Teaching the Javelin Throw

WHAT determines the greatest distance a javelin will travel? Three things: (1) maximum velocity, (2) an optimum release angle, and (3) a minimum wind drag.

First, we naturally think of the javelin's velocity. In general, the faster it's moving when it leaves the hand, the farther it will go. We're also aware of the trajectory, or the javelin's angle of flight. For maximum distance, the javelin should be released at an angle of 45°.

These two factors—velocity and trajectory—mostly determine the distance reached by a projectile. In javelin throwing, however, still another factor—air resistance—becomes vital. The javelin's distance can be strongly affected by the amount of drag caused by the air.

How can this wind drag be kept to a minimum? The least possible air resistance is achieved when the axis of the javelin is lined up perfectly with the direction in which the mass is moving. In brief, the javelin should always point directly where it is going.

Alinement must, of course, be with respect to both vertical and horizontal planes. Upon delivery the javelin must be in line with flight

direction; and the take-off angle and trajectory must coincide. In other words the shaft of the javelin must follow the point. Practice in obtaining this important javelin alinement will occupy much of the candidate's time and effort.

Like other projectiles, the javelin's flight path is parabolic. Though its direction in the horizontal plane is constant, the direction of the mass along the vertical plane is gradually and continually changing. For example, at take-off the direction may be upward at 45°. At the peak of flight, the direction is 0°. After that, of course, the direction of flight is downward.

Ideally, we want the axis of the javelin also to shift slowly so that the javelin remains in alinement with the direction of its mass. That is, we want the javelin at release to be at an angle of approximately 45° with reference to the earth's surface, 0° at flight peak, etc. This is where javelin construction plays a part.

We know that the most efficient javelin for a short throw isn't also the most efficient implement for a long throw. The reason for this difference involves javelin balance. The "short-throw" javelin is balanced so as to nose down more quickly than the "long-throw" javelin.

In general, javelins should vary in

balance in accordance with the probable distance of throw. In this way the nosing down can be made to coincide with trajectory, and alinement is maintained.

There's one small but important exception to what has been said about alinement. During the javelin's descent, a slight upward deviation from the vertical plane can produce a "sail" effect and thereby increase distance. This effect tends to make for a rather flat landing.

The deviation mustn't be great—perhaps no more than 5°—or the resulting turbulence will eliminate any gain. This exception involves javelin construction and selection rather than throwing technique.

Javelin construction plays another important part in determining the amount of air drag. A more rigid javelin will cause less resistance and therefore travel farther. The javelin that's vibrating in flight is alternately presenting surfaces that don't follow the path of the point. Throwing a flexible javelin is somewhat like throwing a piece of garden hose.

The athlete will want to select the most rigid javelin available, but he must also remember that a poorly delivered throw can vibrate even the most superior implement.

Anyone who enjoys throwing the javelin should do so, but great success is possible only to the candidate with considerable native athletic talent. Though a good throwing arm is needed, this asset must be accompanied by natural agility and coordination.

All the balance and technique problems of the other weight events confront the javelin thrower, and these problems are further intensified by the greater speed used in the javelin. For this reason the good javelin prospect will show general athletic ability. He'll seldom appear awkward whenever he tries an event that's new to him.

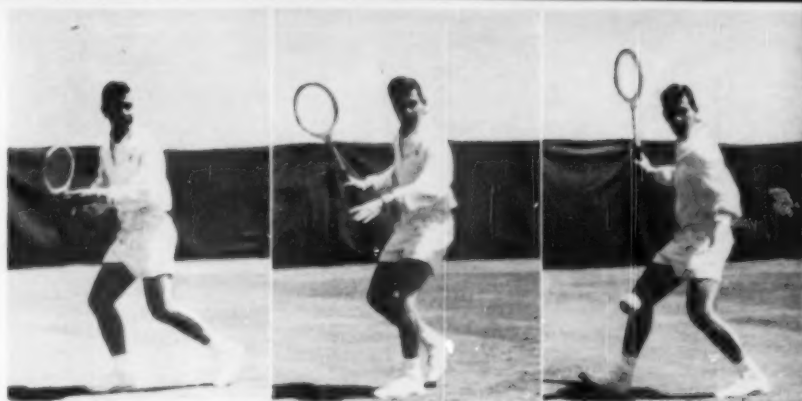
As in all throwing events, the first thing the athlete must do is pick up the implement. Hence, instruction starts with the grip or handhold. The one inflexible rule is that the javelin must be held so that it lays diagonally across the hand—a position that's

(Continued on page 74)

◀ AL CANTELLO, World Record Holder, 282' 3 1/2"

Al Cantello's training and unusual agility permit him to handle the great speed of his run (Nos. 1 and 2). The right hand is carried close to the shoulder, and the javelin points downward. In No. 4 the left foot strikes for the "one" count. The javelin is already drawn back. Notice that the point is as low as the letters of his uniform. This low carry allows for the natural tendency of the javelin to rise and thus helps to keep vertical alignment. In No. 5 the right foot toes out for the "two" count. Note that the center of gravity is low and the axis of the body is no longer inclined in a forward sprinting position. By No. 7 the body has been turned sideways so that the critical cross-step takes place in No. 8. Good position permits a powerful effort by the big muscles of the body (No. 10). The javelin has risen, but its point is still no higher than the head. In Nos. 11 and 12 the head moves slightly aside to permit the javelin to be brought through in the vertical plane. From No. 12 it's clear that the elbow leads the throw. The unique follow-through (No. 15) is a carry-over from Cantello's previous training as an expert diver.

KEN ROSEWALL ▶
Forehand



Championship Ground Stroking

AT a superlative tennis clinic sponsored by the N. Y. Journal-American at the famed Forest Hills Stadium, the greatest players in the world demonstrated the particular stroke for which each is famous. *Scholastic Coach's* magic-eye cameraman was right on the court with them and shot every stroke—which we're happy to relay to you in this handy bulletin-board form. As a supplement to your classroom or court-side teaching, this visual education device is tough to beat. Next month we'll show you the auxiliary strokes as performed by such peerless pros as Lew Hoad, Frank Sedgman, Tony Trabert, and Ken Rosewall.

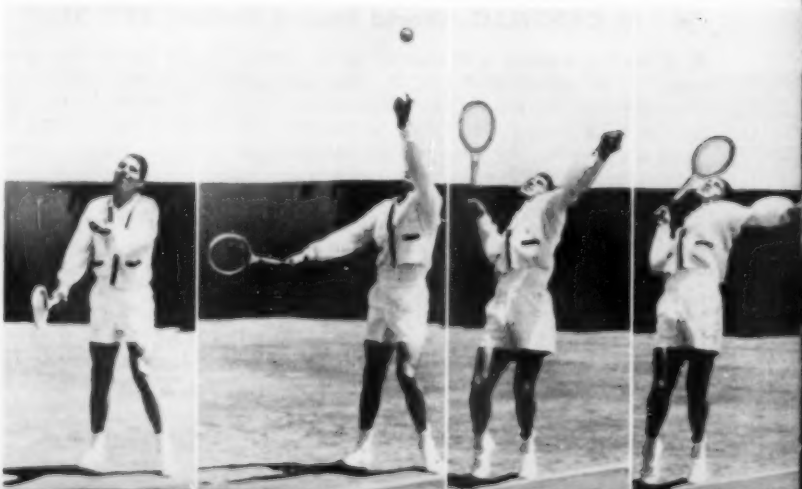


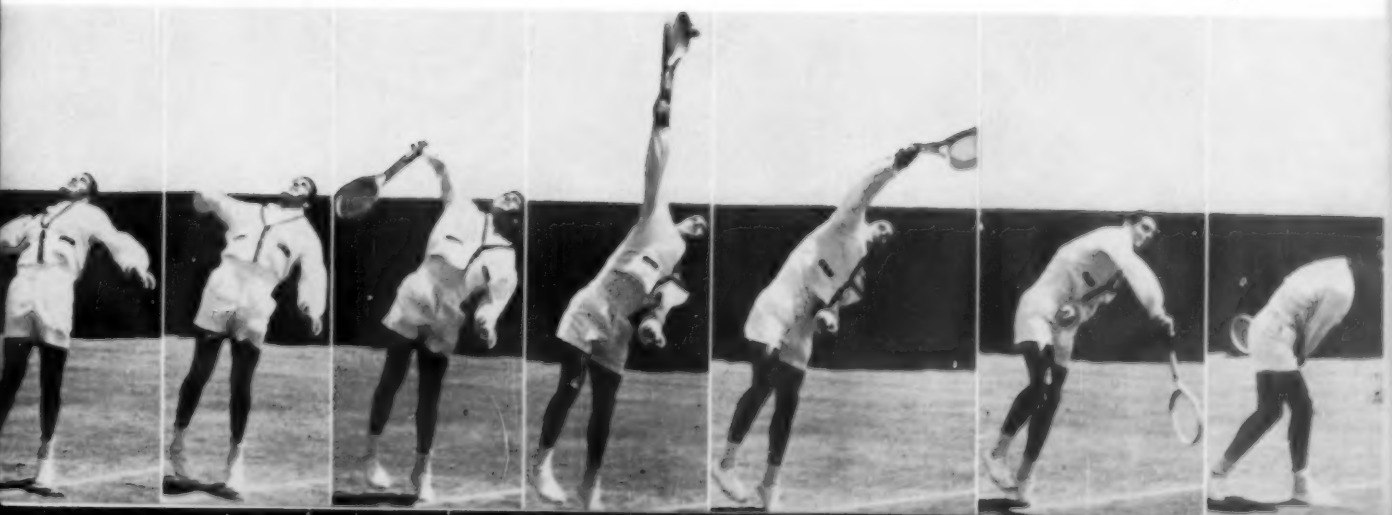
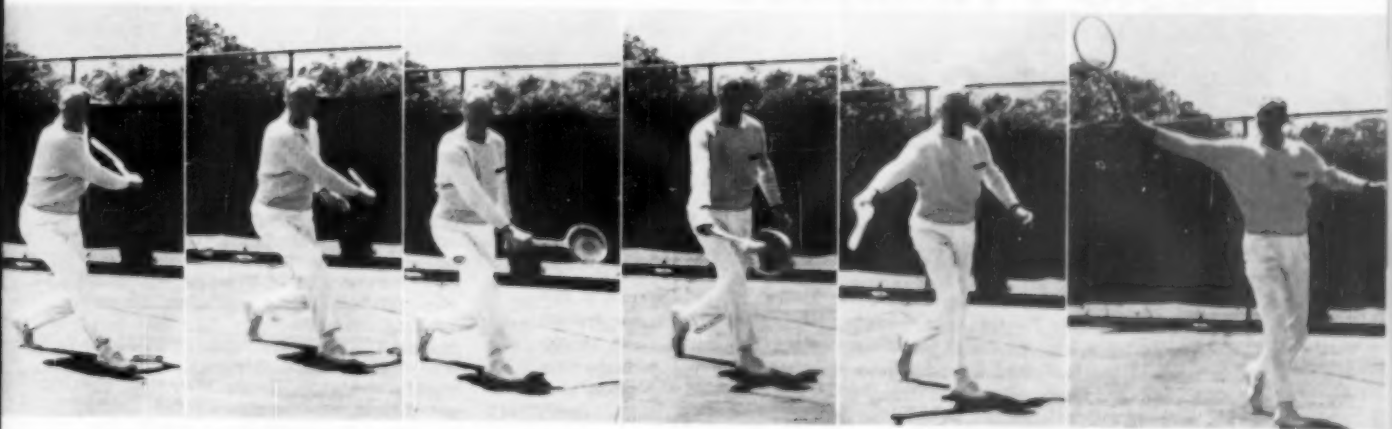
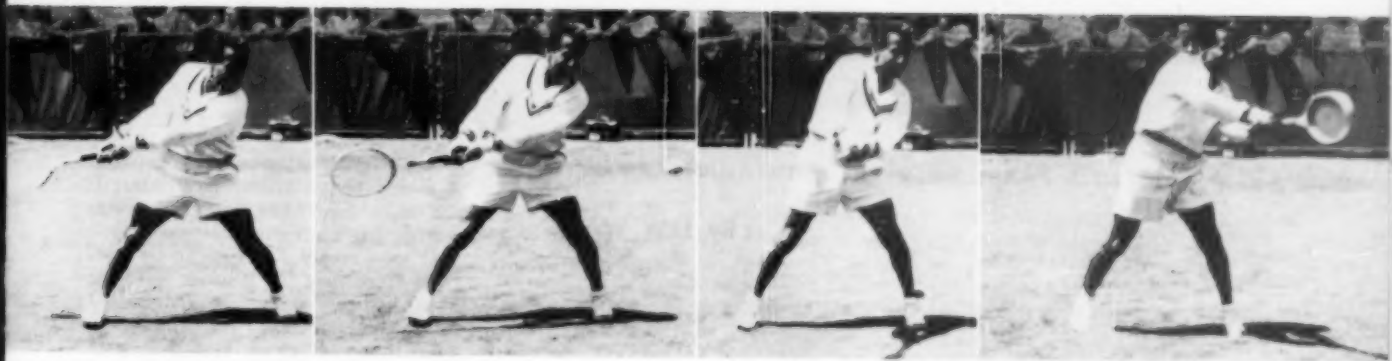
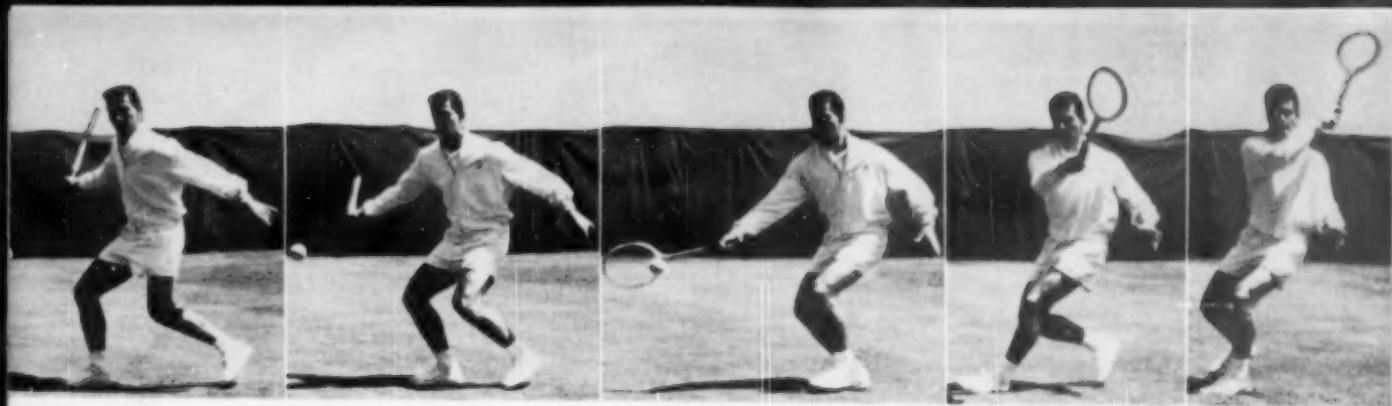
▲ PANCHO SEGURA, 2-Hand Forehand

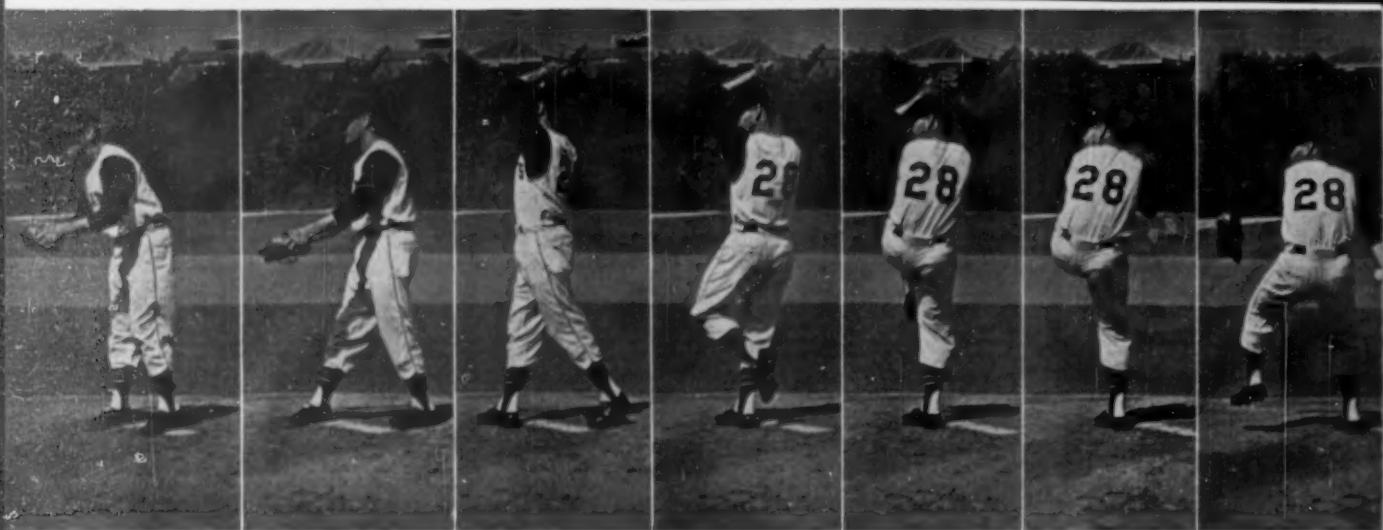


▲ DON BUDGE, Backhand

PANCHO GONZALES ▶
Flat Service







By LEW WATTS

Basic Principles of Good Control

▼ LEFT-HANDED DELIVERY (VINEGAR BEND MIZELL)

All the same elements of good pitching form may be observed in this sequence of the Pirates' hard-throwing left-hander. This is the typical motion of a big, powerful fast-baller—a big kick-up, a deep swing-back of the ball, and a tremendous pivot and arm swing. Note how Mizell uses his glove as a distracting element to lead the pitch, and how the elbow leads the wrist in the delivery.

(Mizell Sequence by Ethan Allen)

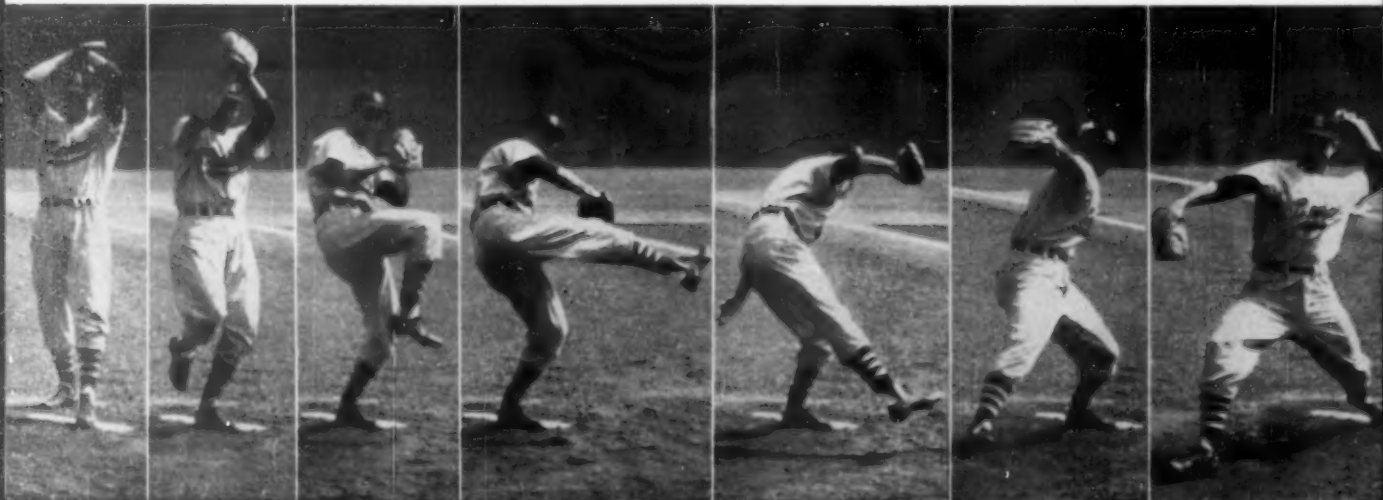
CONTROL is the main essential in successful pitching. Without it the most overpowering of hurlers cannot rise above mediocrity.

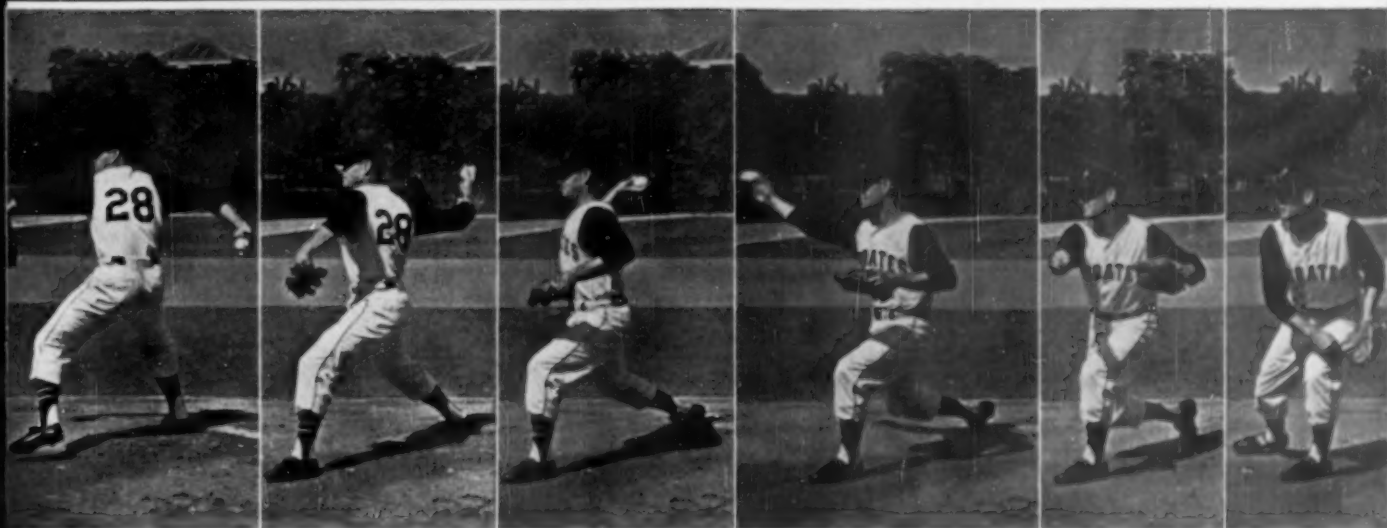
What exactly do we mean by control? Certainly the pitcher must be able to throw strikes consistently—he must get the ball into the strike zone to be effective. But that isn't enough. Control really implies the ability to put the ball close to the target with good stuff on it.

ACQUIRING CONTROL

Since control is the prime essential in good pitching, it's very fortunate that this is one quality which can be acquired. The observance of certain basic principles, the avoidance of several all too prevalent faults, the adoption of a sound mental attitude combined with the application of commonsense, and, above all, practice—practice—and more practice will help any pitcher gain improved, if not really good, control.

Rule No. 1 for all pitchers is: Have a definite target. Although pinpoint control isn't, in itself, essential, the attempt to achieve it is a must. Every pitcher should pick out a specific target (not merely a general area in the





strike zone), concentrate on it intently, and make a determined effort to hit it on every pitch. It's surprising how this little suggestion can help a pitcher's control.

Obviously the catcher's glove is an ideal target. But it can be dangerous. Observant hitters will take advantage of this type of advance information. Whenever the catcher's glove is used as a target and moved around from pitch to pitch, the hitter will be able to tell where the pitch is being aimed.

Hence, fixed targets should be employed. Four of these can be used to good advantage by every pitcher—the catcher's knees and his shoulders. For a low, outside pitch to a right-handed batter, for example, the target will be the catcher's right knee; for a high, inside pitch to a right-hander, his left shoulder, etc.

Other targets can be used according to personal preference. Two things must definitely be borne in mind, however. The target must be within the confines of the strike zone unless a pitch-out or waste ball is being used; and the eyes must be kept on one, fixed target during the entire motion.

A final word on this phase of the problem: While the pitcher should strive for pinpoint accuracy, not try merely to get the ball in the general area of his target, he must definitely

▲ RIGHT-HANDED DELIVERY (PAUL GIEL)

After taking the sign, the former Pirate (now pitching for Minnesota) brings his left foot back for leverage and takes a single pump. He opens his right toe to assure a free hip movement and pivots over the planted member to a coiled position. Note two important points: The ball stays concealed in the glove and the eyes remain fixed on the target. Giel then steps forward, pointing his toe right at the plate, and releases the ball with a nice, easy, but powerful full-arm motion. The arm follows through and the back leg is brought forward into a squared-off fielding position.

avoid "aiming the ball." Whenever he tries to point it at a certain spot, he'll invariably hold it too long. This ruins the natural motion, impairing the pitcher's stuff and producing an even greater loss of control.

The first step in acquiring control is a simple but effective practice technique. In throwing to a catcher, the pitcher should begin by trying to throw every ball "through the middle." This should be repeated, using nothing but a three-quarters fast ball, until control to this particular spot is well-nigh perfect. Once this has been accomplished, the target should be shifted to low and "through the middle" until perfection has been reached.

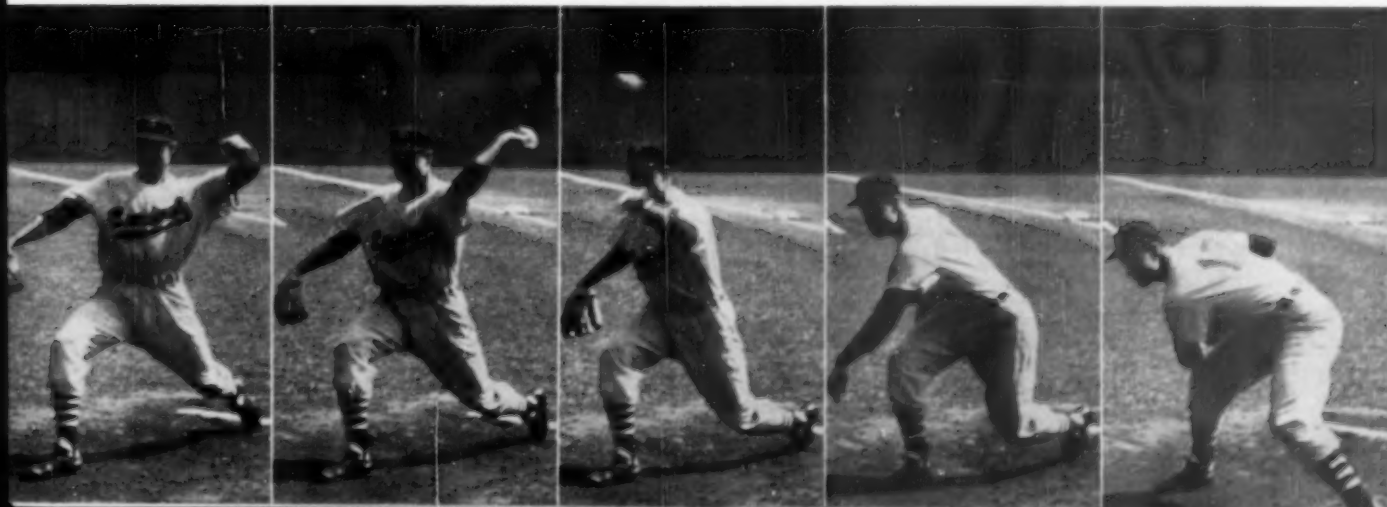
The same method can then be applied to the letter-high level. Finally,

when satisfied with his ability to hit these targets, the pitcher should follow the same procedure for the inside and outside corners of the plate. This routine should be followed at frequent intervals, particularly during the pre-season training period, with the catcher offering a steady glove-target for each pitch.

This simple drill will work wonders for almost any hurler, and can be employed with each of his deliveries—but only after near-perfect control of his fast ball has been mastered.

The stride is very important in achieving control. Three facets of the stride bear heavily on control—its direction, the part of the foot on which it lands, and its length.

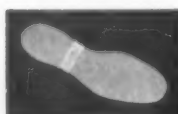
The striding foot should land at a point approximately 6 inches to the





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side of an imaginary line running from the pivot foot to the plate. This assures the pitcher of greater freedom of movement by preventing his throwing across his body, a practice which locks his arm and chest in a way that hampers both power and control.

At the same time, the striding foot should be pointed directly at the target. This last point is extremely important. Simple though it may appear, it's too often overlooked. The improvement in control will be quite noticeable if this idea is carried out faithfully.

In taking his stride, the pitcher should land on the ball of his foot. The man who lands on his heel jars his entire body enough to upset his balance and temporarily blur his vision.

These handicaps needn't be imposed on a pitcher. They can be eliminated by having him land on the ball of his foot, a practice which makes for better stuff as well as improved control since it leads directly to a good follow-through.

The length of the stride should be moderate—of sufficient length to get good power behind the throw, but not so long as to upset the delicate balance essential to a good pitching movement. Overstriding is a serious deterrent to good control in that it's usually accompanied by the aforementioned landing on the heel which jars one's vision. Furthermore, it prevents the proper bending of the back which is required for a good follow-through.

The follow-through, itself, is vital because it maintains control right up to the last body movement of the pitching motion.

It should be fairly obvious that good control depends upon the repetition of actions for each type of pitch. This means that the fingers should be the same distance apart, the ball should be held the same distance out from the crotch formed by the thumb and forefinger, the angle of delivery should be similar for each throw, the finger-pressure applied to the ball should be alike from pitch to pitch, and that the feet should wind up in the same respective spots on each follow-through. A fraction of an inch difference on the rubber can mean inches in the strike zone.

In short, control can be achieved by constant, systematic practice, applying the principles of the fixed target, the well-controlled stride, and similarity of actions.

CAUSES OF WILDNESS

Granted that some pitchers are inordinately wild and that all of them can well-afford to improve their control, what are the underlying reasons for wildness? The fundamental causes of this ruinous affliction seem to resolve themselves into nine distinct categories, each of which will be touched upon below.

1. **Changing finger-pressures on the ball.** This refers to the delivery of

each of the different pitches—fast ball, curve, change, etc. It goes right back to the principle of similarity of actions. A difference, in this case, means that more pressure is applied on one side of the ball. This causes a general imbalance in grip and results in a different release of the ball from pitch to pitch. A complete absence of consistency ensues, even in cases of wildness which already exists. It's thus imperative that every fast ball, every curve, every change, etc., be gripped in identical fashion.

2. **Failure to concentrate on a fixed target.** So important is it for a pitcher to keep his eyes focused on a definite target that the emphasis on it can stand frequent repetition. Even when a fixed target is selected, it's often lost from view during the pitching motion.

It's almost invariably caused by the turning of the head and eyes during the pivot. This means that the eyes must re-focus on the target as the pivot is completed, and, needless to say, can do little but harm to a pitcher's control. The obvious remedy is to keep the eyes glued on the target at all times while the ball is being delivered.

3. **Excess rocking.** This is closely allied to No. 2. The most effective motion is the pendulum type. When the body is rocked excessively during the pivot, the head and eyes will move and lose sight of the target. The suggested remedy is a shortened pump and concentration on restricting the shifting of the weight to backward and forward movements, thereby eliminating extraneous and harmful body actions.

4. **Throwing across the body.** This habit locks the hip and shoulders to such an extent that a good follow-through is impossible, meaning that a smooth continuity of motion will be absent from the delivery. Reverting to a device which has been previously explained, it can be corrected by drawing a line from the pivot foot to home plate and planting the striding foot about 6 inches to the side of this line—first base side for a right-handed pitcher, third base side for a left-hander.

5. **Lack of proper follow-through.** A partial follow-through interrupts the continuous control which should be maintained from start to finish of the pitching motion. It also means that the body isn't completely behind the throw and can give rise to the sore arm to which "arm-throwers" are prone. It's characterized by a relatively straight back, and can be remedied by a full bending of the back and an effort to complete the delivery with the pitching hand below and to the outside of the knee of the striding leg.

Closely related is poor balance on the release of the ball, a habit which is equally injurious to control. This is caused by an uneven follow-through which, in turn, stems from the fact that the pitcher doesn't "follow the ball" with his motion. It can be corrected by striving for a squared-away

(Continued on page 40)

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Fitting the Form to the Distance

By JULIAN U. STEIN, Coach, Wakefield H. S., Arlington, Va.

ALTHOUGH each and every one of us has run since early childhood, running is not a natural ability but a *learned* technique, and as such can be improved through practice and a great deal of *correct* running stressing the proper form, techniques, and fundamentals.

Each race has a style all its own, unique and peculiar to that distance. When you use incorrect form, you're expending valuable energy unnecessarily. Good form makes you a more efficient and effective runner, capable of using all of your energy in winning the race and not wasting part of it in lost motion.

For years Americans ranked well behind the Europeans in distance running. The reason was simple—we were running the distances as sprinters, i.e., with a sprinter's form! By the same token, many Europeans were poor sprinters because they tended to follow distance form in the shorter races.

By developing the best possible form for your event, you'll be a better competitor in that event. *Practice makes perfect; good running is an accumulation of a lot of running!*

In some races an individual will use several types of form at various stages. For this reason it's very important to master *all* of the various types of running form so that you'll be able to compete in a variety of races.

Check the following for the various fundamentals that are important in different events and at specific stages in certain events:

FOOT-PLANT

Sprints: Stay high on the toes; the heels shouldn't touch the ground; explode with tremendous drive.

Stride: Land lower on the ball of the foot than in the sprints. In general, the heel won't hit the ground;

this is an in-between action of the two extremes.

Middle Distance: Land low on the ball of the foot; drop to the heel and then push off the ball of the foot (ball-heel-ball action).

In all running, make sure that the toes are hitting straight forward and not turning in or out. If this is happening, check for special corrective exercises and concentrate on correcting it while running and walking. Your heel should never "slap" or hit first. When this happens you can usually hear yourself. In such instances, work for correct form. Hitting on the heel isn't only poor form but jars your entire body.

Special exercises: jump rope, bouncer, form running, hill (work up).

KNEE ACTION

Sprints: High forward knee action. It's from this action that the sprinter's longer stride develops. Do exercises and drills that will assist in the development of this extremely high forward knee action.

Stride: Again, this is an in between action. The sprinter will lower his knee action slightly when changing into his stride (this would be the float of the 440), during which time there's also a conscious relaxation. The middle distance man will lift his knees slightly to achieve this (used as a means of checking out by the middle distance man, also).

Middle Distance: A lift of the knee is necessary. However, it's not as high as either of the previous two, nor as deemphasized as the distance man. Those who run cross-country must do a great deal of concentrating in this area in order to develop just the right amount of knee action. Those with smaller thighs can develop a higher knee lift than those with heavier thighs.

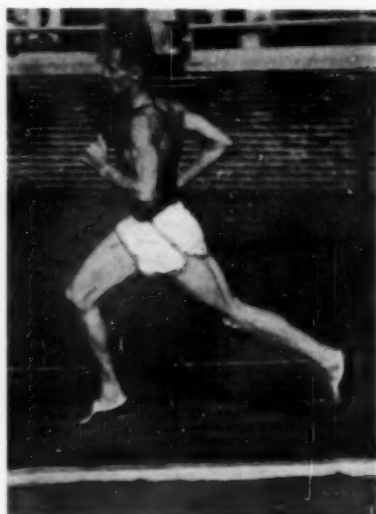
Special exercises: sprint drills, hill work, inverted bicycle, form running.

REAR KICK

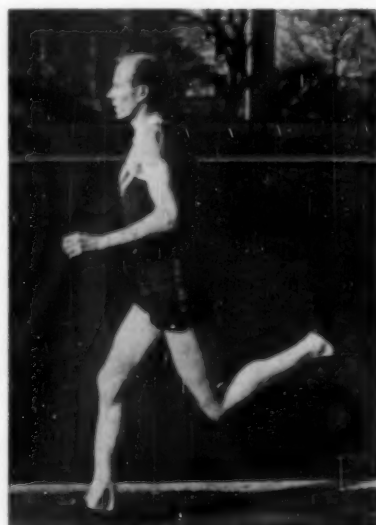
In general, if you concentrate on the forward knee lift and master it, the rear kick will take care of itself, developing naturally. As a check,



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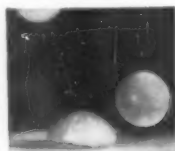
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though, in the sprints there should be very little rear kick, gradually increasing a little more in the stride, still more in middle distances, until in the true distances there'll be a very high rear kick with little if any forward knee lift. Concentrate on the forward knee lift, and then worry about the rear kick only if it is out of line.

Remember: *The longer the race, the shorter the stride; the shorter the race the longer the stride.* This is because the shorter the race the higher the forward knee lift and the less the rear kick, and vice versa.

BODY ANGLE

Sprints: A definite forward lean of between 25 and 30°. The lean is from the ground and involves the entire body. Avoid leaning only from the hips or waist. With the proper knee action, the lean will be facilitated. Use drills to develop this to perfection.

Stride: Again, the in-between form of the two extremes, ranging from about 15-18°. The sprinter would reduce his forward lean and the middle distance man would increase it to change to this form. Usually a change in knee action helps in the adjustment to the proper body angle.

Middle Distance: Least angle of these three but slightly more forward than in true distance form. Lean should be in the vicinity of 10°. Avoid the tendency to ride back or run too straight, thus fighting yourself and hindering your speed. This must be watched, particularly when tired.

All lean is from the ground and not the hips or waist. Be sure to keep the head in line with the rest of the body, not over or under extending the neck. This is a most important point because the angle of the head with regard to the body can determine the extent of your total form.

Special exercises: sprint drills, hill (work up), form running.

ARM ACTION

Sprints: Very vigorous with a lot of arm drive. For this reason, the sprinter's arms and shoulders must be in very good condition. In many cases, the hand will come up to eye level or maybe even higher because of the tremendous drive. On the back swing, it will come back on a line with the back. All of the bend is at the elbow and remains relatively constant. The swing is from the shoulders. Arm actions facilitate your overall drive and speed.

Stride: Still the in-between action, reducing to get from the sprinter and increasing to get to from the middle distance form. In the 440 float, this is accomplished through definite dropping and conscious relaxing. Swing is from the shoulder with the elbow angle fixed at about 90°. Forward swing is to about the chin and the backward swing to the plane of the back.

Middle Distance: Should be natural, rhythmic and even swing. Swing is from the shoulder as in the others.

Elbow is at a rather fixed angle, but inclined more downward than in the others. If the arms become tired during the race, they can be dropped to a vertical position for a few strides to rest them. Forward swing is to about the shoulder and back to the plane of the back.

In all cases the arms should swing relatively straight rather than across the body when going around turns, particularly indoors, the outside arm can go across the body to help in the turn. In this maneuver, the inside arm and shoulder should be dropped. This tactic must be practiced daily to develop perfection. Other than this one variation, keep the arm swing straight.

Special exercises: 'sprint drills, hill (work up), form running, sprint drills using dumbbells in the hands.

Special Notations: In all cases keep the fists unclenched. This can be accomplished by having only the little fingers touch the palm of the hand or touching the thumb and index finger together. This is most important since clinching the fists will cause you to tie up quickly.

Remember: In all cases the swing is from the shoulder. Think of it as if you had a pin driven through the shoulder and that all arm swing originated from there. In most cases the angle at the elbows remain fixed, even though it may vary from sprint to stride to middle distance.

HEAD

In all cases the head should be in line with the rest of the body. If this isn't done, the entire form will be off since in many ways the rest of your form follows the example of your head. Keep the eyes focused about 12 to 15 yards in front of you; this will keep the head angle correct.

In the sprints, it may be necessary to bring the point of your focus a little closer than this. In the longer runs, avoid looking at the feet of an opponent who's in front of you, since this will tend to make you fall into his stride and cadence. The head angle is a most important aspect of your total form.

Special exercises: form running, thinking about the proper angle.

RUNNING STRATEGY

All races are divided into four parts: (1) start; (2) pick-up; (3) body; (4) finish.

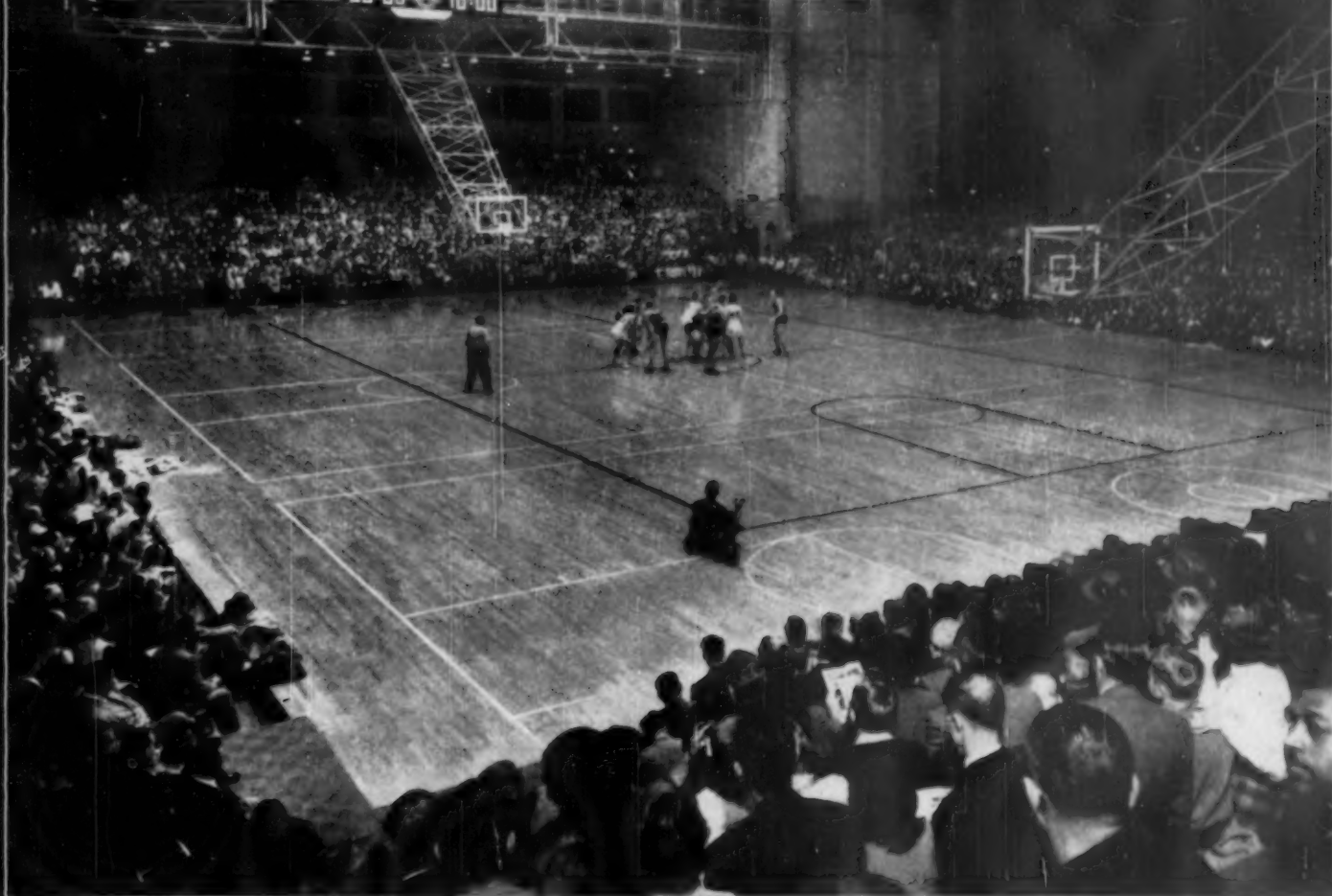
Know the exact length and strategy for each part of your race whatever the distance. Know the most effective and efficient form for each phase of your race. Adjust your form as the phase of the race changes—think at all times.

General Notes About Running Form:

1. Practice makes perfect. "When you think you're ripe, you're rotten; when you feel you're green, you'll grow."
2. Good running is an accumulation of a lot of running.

(Continued on page 61)

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Analyzing and Correcting Batting Faults

By **CHARLIE IRACE**, *Coach, Hunter College (N. Y.)*

IT'S one thing for a coach to detect a flaw in a hitter's style and another to correct it. The ability to both detect and correct often spells the difference between the successful coach and the also-ran.

What are the basic batting faults? How are they identified? What are some of the methods of correcting them?

The basic batting faults are as follows: (1) stepping into the bucket, (2) hitching, (3) hand-hitching, (4) lunging, (5) over-striding, (6) inability to hit low pitches, (7) inability to hit high pitches, (8) inability to hit inside pitches, (9) inability to hit outside pitches, (10) watching the pitcher instead of the pitch, and (11) fear of being beamed.

STEPPING INTO THE BUCKET

Ever since the immortal Al Simmons tore apart the American League with his foot in the bucket, this style of batting has undergone closer scrutiny. Stepping into the bucket isn't necessarily considered a fault any longer, depending on how the hitter does it.

The bucket hitter doesn't stride toward the pitcher, but toward third base if right-handed or first base if left-handed. He's usually unable to hit an outside pitch because he can't reach it; or, if he can reach it, is unable to generate much power because his body weight is moving away from the pitch.

What then was Simmons' secret? First, he used a longer bat. Then, although he'd step toward third, he still managed to keep his hips and shoulders turned in toward the pitch. This enabled him to protect the outside corner of the plate while maintaining an excellent position on pitches over the inside corner.

In this way Simmons took full advantage of the arc of his swing, always contacting the ball at the point where the hitting end of his bat passed over the inside or outside corner of the plate. A coach shouldn't alter a bucket hitter's style if he possesses the aforementioned abilities.

However, batters with these attributes are rare. Most bucket hitters need correction.

Corrections:

1. Have the batter assume his stance with his front foot deep in the bucket. Although this may feel uncomfortable, it will leave him no alternative but to step back into the pitch. Explain that this is a temporary measure designed to break him of the habit, and that he's to gradually return to the normal placement of his front foot.

2. Have him turn his forward hip in toward the plate as the pitch starts to come toward him.

3. Have him extend his forward arm back toward the catcher as the pitch starts toward him. This will automatically rotate his shoulders in toward the plate.

HITCHING

Just as there have been great bucket hitters, many fine hitters have been known to hitch. The secret of their unusual success was in how they did it.

Hitching tends to destroy a hitter's timing and place him in a bad position for the letter-high pitch. Timing is destroyed because the hitter lowers his hands and, therefore, his bat just before he starts his forward swing.



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This movement generally causes him to swing late. By dropping his hands and the bat, the hitter must fight gravity as he swings upward to hit the ball. Since a high pitch has less distance to travel than a low pitch, it arrives quicker. For these reasons the hitch hitter usually swings late, missing the ball completely or hitting fly balls.

Batters who hit successfully despite a hitch do so because: The hitch occurs before the pitch is actually thrown and their hands are drawn back and up when the pitch begins to come toward them. When they hitch while the ball is coming toward them, they possess unusually quick and strong wrists, combined with extraordinary reaction time and depth perception.

If the hitters don't possess these attributes, the habit must be broken.

Corrections:

1. Have the hitter hold his hands about waist high. This will cause him to feel uncomfortable and to have difficulty hitting the letter-high pitch, but he'll be unable to hitch.

In addition, have him extend his forward arm back toward the catcher as the pitch starts toward him. As he does this, he'll automatically raise his hands a little. Explain that the low position of the hands is a temporary thing designed to break the bad habit pattern. Gradually raise the position of the hands back to a desired height as the tendency to hitch diminishes.

2. Have the hitter hold the bat on some part of his shoulder. Most hitters don't realize they're doing it. But with the bat on the shoulder, he immediately knows when he hitches. Don't combine this with correction 1.

HAND-HITCHING

Hand and bat movements resulting from wrist actions as the ball is approaching are known as hand hitches. The hand hitch should be differentiated from the same type of bat action that occurs prior to the delivery. When these movements occur after the pitch has been thrown, they impair the batter's timing.

Correction:

The same as No. 2 under Hitting.

LUNGING

The lunge-hitter is one who strides into the ball and shifts his body weight too rapidly. This results in poor timing and a lack of power. The poor timing stems from the hitter anticipating a fast ball and stepping accordingly.

Any slower pitch finds the hitter with his body weight thoroughly committed and unable to readjust. Not only does this destroy his timing, but it robs him of power. Also, so much weight has been placed on his front foot that he cannot pivot on that foot, causing his hips to lock. This robs him of additional batting power.

Corrections:

1. Have the hitter spread his feet

wide apart when assuming his stance so that he doesn't have to concern himself with striding.

2. Have the hitter keep more weight on his front foot than his rear foot while waiting for the pitch. This will feel uncomfortable, especially to a hitter over-anxious to stride forward, but it will force him to restrain himself.

By having his weight on his front foot, he'll be forced to shift his weight back onto his rear leg in order to free his front foot to step into the ball. He'll thus be more likely to have his weight on his rear leg, enabling him to ascertain the speed of the pitch before committing himself. He'll also be better able to adjust to the type and direction of the pitch.

3. As the pitch starts coming toward the batter, have him extend his left arm back toward the catcher and rotate his forward hip in toward the plate. These movements will aid him in keeping the weight on his rear leg until the proper moment.

OVER-STRIDING

Over-striding and lunging often occur together, but they're separate faults. The over-striding batter takes too long a step into the ball, resulting in a lowered body plane and a loss of body control. This causes a reduction in accuracy and an impairment in timing so that you find the batter swinging under the ball and swinging late.

Over-striding batters generally hit low pitches better than high ones and outside pitches better than tight ones. Pop flies and handle hits are common among such batters.

By lowering the plane of the body, the pitched ball seems to rise and the hitter tends to swing under it. The unusually long forward movement of the body into the ball makes the pitch reach the batter faster than it ordinarily would, causing him to swing late.

Corrections:

1. Have the hitter spread his legs very wide apart so that he'll be unable to step into the pitch, or, at most, confine him to a very short stride.

2. If the batter prefers not to spread his legs apart, have him await the pitch with the weight on his front leg. Either or both of these adjustments will tend to restrict his striding movements until the bad habit is broken.

INABILITY TO HIT LOW PITCHES

The batter who's having difficulty hitting pitches below his waist is probably not bending his rear knee during his swing. If he's asked simply to bend his rear knee, he'll very likely be unable to do it.

The rear knee will bend automatically if the batter keeps his body weight back (doesn't lunge) as he starts his swing. If he shifts his weight forward before starting his

(Continued on page 28)



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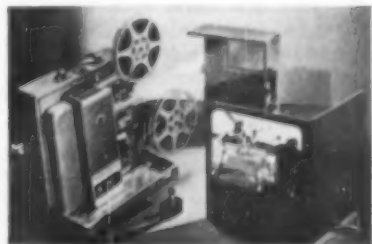
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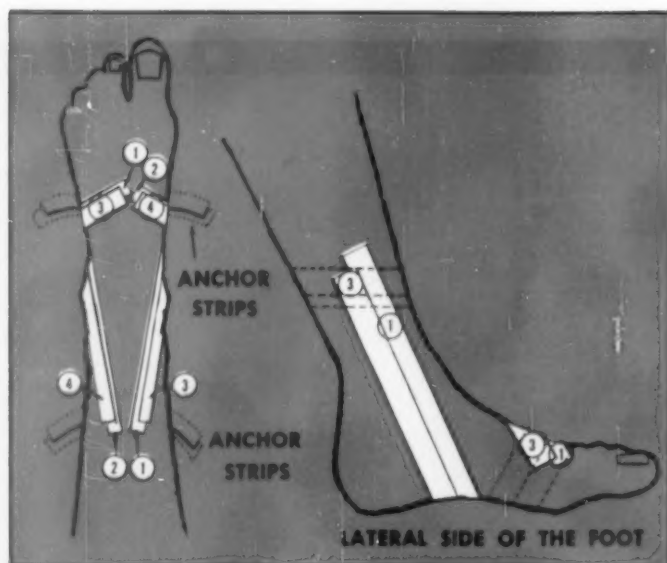
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If the athlete must continue to compete after spraining his ankle, the part should be sprayed with ethyl-chloride and taped (as shown) so that an outward twisting is impossible.

New "Wonder" Treatment for Sprained Ankles

THE old saying, "It's useless to lock the barn door after the horse has been stolen," may be applied to many athletic injuries, particularly those stemming from poor physical condition or muscle tone.

The athlete who's as "solid as a brick wall" bounces back quickly after a pile-up. The "soft" athlete doesn't. Although it's impossible to prevent all injuries, you can obviate a great many of them or at least vastly minimize the degree of damage through proper physical conditioning.

Since poor muscle tone may very easily produce an injury, let's start at this end result and work backward.

A very common type of athletic injury is the twisted or sprained ankle. The generally accepted approach to this condition isn't advantageous to the athlete. There's another approach that's not only desirable and beneficial to the athlete, but most welcomed by the coach as well. Its prime objective is to

restore the damaged area to normalcy as soon as possible, to enable the athlete to resume competition without pain or fear of further damage to the injured area.

In order to successfully accomplish this, a thorough modern understanding of the body is essential. This means years of study with an open, inquisitive, mind. With modern know-how, the individual can be returned to normalcy within an incredible short period of time—a matter of an hour or so—and without the use of tape or restrictive bandaging, provided proper and prompt attention is administered.

The most common way an ankle is sprained is by an outward twist, called inversion. Try this yourself: With your foot resting flat on the floor, try turning your ankle outward and inward. Note how much more movement there is in the outward twist.

Twisting of an ankle inward, called eversion, is also possible,

but usually the resultant damage will not only be soft tissue such as tendons and ligaments, but bone as well. This article will be confined to soft-tissue damage resulting from the common sprained ankle. This type of twisted ankle isn't too serious, and the proper and prompt attention is the key to a fast recovery.

The athlete should elevate the injured ankle above the level of the heart. Cold wet packs should be applied to the damaged area as soon as possible. Spraying the area with ethyl-chloride is excellent for immediate first aid, but an ice-cold wet towel wrapped around the ankle and repeatedly dipped into ice-cold water is the best and most effective approach.

This treatment should be continued for at least 20 to 30 minutes, the purpose being to keep the swelling to a minimum. This is most important for a fast recovery.

DON'T: apply heat, massage, or ice directly to the skin.

The next step, passive movement of the ankle joint, should be administered by a qualified person. Chiropractors, being well schooled in passive movements, are well-suited for this type of therapy.

The foot must be moved through its normal physiological range of motion within the tolerance of pain. The range of motion, which will naturally be limited at first, should be gradually increased until the normal or near normal range of motion is obtained without pain.

These manipulations may take as long as an hour, but the patient may then be capable of resuming his normal physical activities!

Immobilization of the ankle will only produce adhesions, which is scar tissue attaching itself to live, healthy tissue. This condition may retard the return to normalcy for several weeks, with a good possibility of creating a chronic weak ankle.

Resumption of light physical activity should be encouraged. No limping or favoring of the ankle should be allowed. With this approach to twisted ankles, there's no need for the use of tape or restrictive bandages. Since a normal circulation of blood and lymph fluid is most essential for a fast recovery, this common practice should be eliminated.

During the early phases of the
(Continued on page 60)

By **JOSEPH GOLDENBERG, D. C.**, Physical Trainer, New York University

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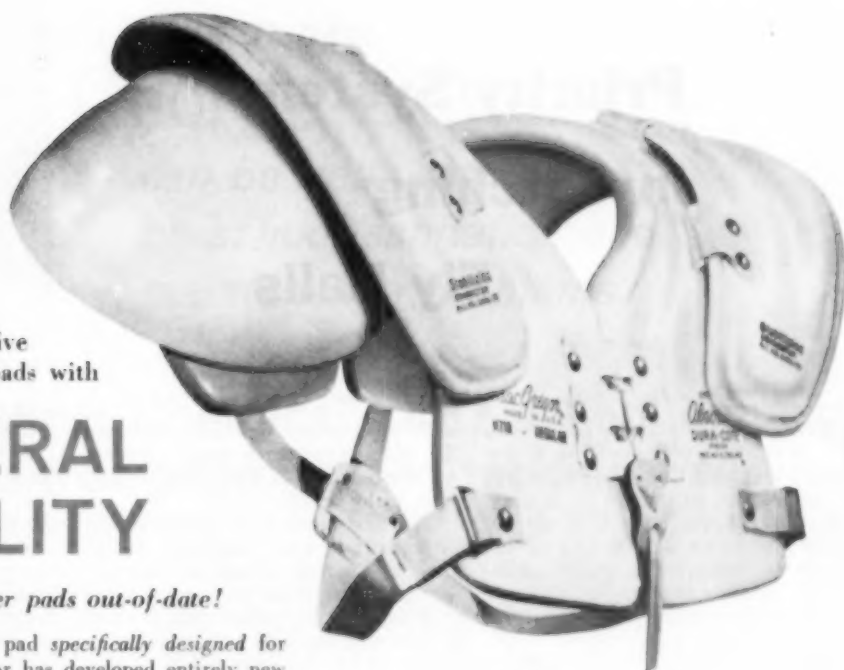
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Not only in design, but in materials are these pads the best protection in the game. Improved materials for better protection are placed over vulnerable points. Stronger coating—MacGregor's Dura-Cote—makes MacGregor's exclusive Absorblo* even more durable. This great combination of perfect design and the finest materials makes MacGregor's new shoulder pads with *Lateral Stability by far the best protection the game has ever known.

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*Patent No. 2,785,407

Priority System in Catching Fly Balls

PROFESSIONAL ballplayers used to refer to collegians as "collisions," meaning that they were just as apt as not to collide on a play. The favorite play for this act, of course, is the fly ball. A pair of determined ballplayers, each stubbornly refusing to hear, see, or think on this simple play, can end up flat on their backs.

Accidents don't occur frequently in baseball, but they certainly can result from a lack of teamwork on this kind of play.

The other aspect of this play is called the "Alphonse and Gaston" act, where overcautious and not too aggressive players allow the right of way to each other. Fly balls may never cause accidents with this type of ballplayer, but they often wind up as base hits at some critical stage of a game.

Obviously, some system is needed to make players know instantly and assuredly whether to catch a particular fly ball or to give way to a teammate also involved in the play.

A popular system is to have the team captain make all the calls. Another system is to have the second baseman or shortstop make the calls, because of their central position. Teams which don't like their pitchers to catch fly balls will use the pitcher to call infield fly balls, while other teams will merely leave it up to the player who shouts first and loudest.

Unfortunately when a third party, as the team captain or an infielder, makes all the calls, he'll often call players who cannot possibly make the play. And where you have men not directly involved in a play making the calls, they'll often call different players. Where this system is used you'll also give the opposition an opportunity to interfere by making calls on the play.

Pitchers who are told not to catch fly balls sometimes cause trouble by watching balls drop that no one else could possibly field.

The first-come first-served method results in everyone hollering as soon as the ball leaves the bat. On windy days, especially, a catcher may end up past shortstop, a third baseman in the bull pen, or an outfielder at second base.

Certainly there's no foolproof system. But by having every player understand the relationship of his position to others, and the degree of difficulty involved in catching fly balls in particular areas of the field, the coach can work out a very adequate system.

For want of a name, this can be called the "priority system." Under this system, two players calling for a fly ball know immediately which one should continue after the ball and which one should back away. Everyone knows that:

1. It's easier for an outfielder to move forward to catch a fly than for an infielder to back up.

2. It's easier for a first or third baseman to catch a fly ball part way down the baseline than for the catcher to handle the same play.

3. It's easier for the shortstop to circle behind the third baseman or for the second baseman to circle behind the first baseman to catch fly balls than to have these other basemen move directly backward.

These ideas and a few others can be so organized that a definite priority can be established between any two players, eliminating all doubt, even a moment of hesitancy, whenever two players holler for a fly ball.

But, first, some cardinal principles on the fielding of fly balls:

1. No matter how obvious it may be that you're the one to field a fly

ball, holler to warn away other players.

2. If you and another player both go after a fly ball and you're the one to back away, reassure the other player by telling him to "take it."

3. Run down any fly ball that you can reach until someone hollers you away.

4. Wait until a ball reaches the peak of its climb before hollering for it.

5. Let the players involved determine which one shall catch a fly ball. Outside voices usually do nothing more than create confusion.

With this as a basis, let's now move into the priority system. Most teams place their best defensive outfielder in center field. Should there be any question about handling a fly ball between the centerfielder and the leftfielder, or the centerfielder and the rightfielder, the centerfielder should be the one to make the catch. He has the priority, and whenever the two players holler the right or leftfielder must give way to the centerfielder.

On any play between outfielder and infielder, the outfielder has the priority for several reasons. Principally because he's moving in on the play and can judge the ball more easily, and also because he's in better position to throw should this be necessary.

Between the shortstop and third baseman, the shortstop has an easier play because he only moves laterally and can keep his eye on the flight of the ball, whereas the third baseman may have to turn his back directly to the plate and so lose sight of the ball. The same applies to the second baseman and first baseman.

In plays around or directly behind second base, involving the second baseman and shortstop, several factors must be considered because both are in equally advantageous positions. The priority here may have to change from game to game or even during a game, because of several variables.

One important consideration is the sun, and the player who can look away from the sun should have the priority. Sheer defensive ability must also be brought into account, and at certain stages of the game the comparative throwing ability of both men may be of importance. At any

(Continued on page 56)

By JOHN LaPLACE, Coach, City College of New York



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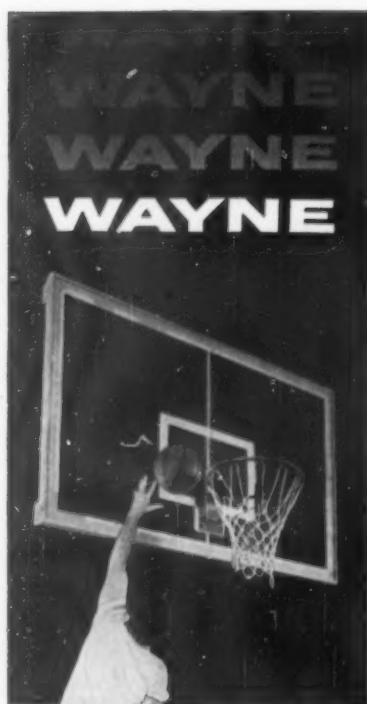
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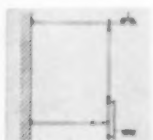
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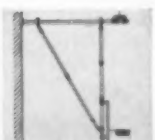
Backward Told
ceiling mounted



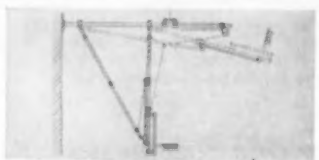
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Analyzing Batting Faults

(Continued from page 22)

swing, his rear leg will be extending and therefore be unable to bend at the knee.

When this happens, the hitter compensates by swinging at low pitches with his bat at an angle to rather than horizontal with the ground. Not only does this produce poor timing, decreased accuracy, and sliced hits, but the poor shifting of the weight also causes a reduction in power.

Corrections:

Apply the same formulas as for Lunging.

INABILITY TO HIT HIGH PITCHES

Hitters are often classified as either high- or low-ball hitters. The reason for this is that they take one type of swing.

Since the pitches are different, so too should be the swing. The successful low-ball hitter who has difficulty hitting the high pitch is probably uppercutting. This means his hands are dropping below the height of the pitch, resulting in strikes, foul tips, or pop flies. If the pitch is a rising fast ball (as the high pitch so often is), the weakness is magnified.

Another reason for failing to hit high pitches stems from over-striding. This lowers the plane of the body and eyes in relation to the pitch, creating a rising effect in a pitch which may not be rising at all. Strikes, foul tips, and pop flies are again the natural result.

Corrections:

1. Have the hitter practice raising his hands and bat and then swing slightly down at pitches above the waist. At the outset, the raising of the hands and the downward swing should be exaggerated. Once the bad habit pattern is broken, the hitter can gradually return to an almost level swing at the high pitch.

2. Refer to the corrections under Over-striding.

INABILITY ON INSIDE PITCHES

There are a number of reasons why batters may experience difficulty hitting pitches over the inside corner of the strike zone. The hitter may be lunging and therefore locking his hip, rather than keeping his weight back so his hip can be opened quickly, permitting his hands and bat to get free of his body and out ahead of the pitch.

Lunging also makes the pitch reach the hitter faster than it actually should.

A third reason may lie in the swing. If the hitter is a sweep swinger (arms extended and somewhat stiff during the swing), the arc will be too great, making it difficult for the fat part of the bat to come into the ball.

The sweep swing may also be due

to the manner in which the bat is held in the stance. Even the stance may need correction.

Corrections:

1. Refer to the corrections under Lunging.

2. A couple of adjustments are recommended to correct the sweep swing. The hitter should hold his hands farther from his body so that the initial part of his swing won't describe an arc away from his body, but in toward his body, bringing the fat part of the bat over the inside corner earlier in the swing.

If the batter has "lazy" wrists or hands, have him wiggle the bat slightly to make him conscious of his control over the hitting end of the bat. This should improve the quick-wrist and live-hand action so vital in coping with the inside pitch.

3. The hitter must accept some of his limitations and adapt himself accordingly. If the pitcher is deliberately throwing him inside, he should stand farther from the plate, open his stance, or both. The pitcher then has the burden of detecting what has happened and readjusting.

INABILITY ON OUTSIDE PITCHES

If the batter understands what he must do to hit inside pitches, he can deduce some of the things he must do on the outside corner. Instead of opening his hip quickly, he should keep it locked and turn his front shoulder in toward the plate more than usual. He must still keep his weight back as he starts his swing.

Finally, he should alter his usual follow-through, since this would reduce his accuracy and power. He should follow through in the direction of his hit.

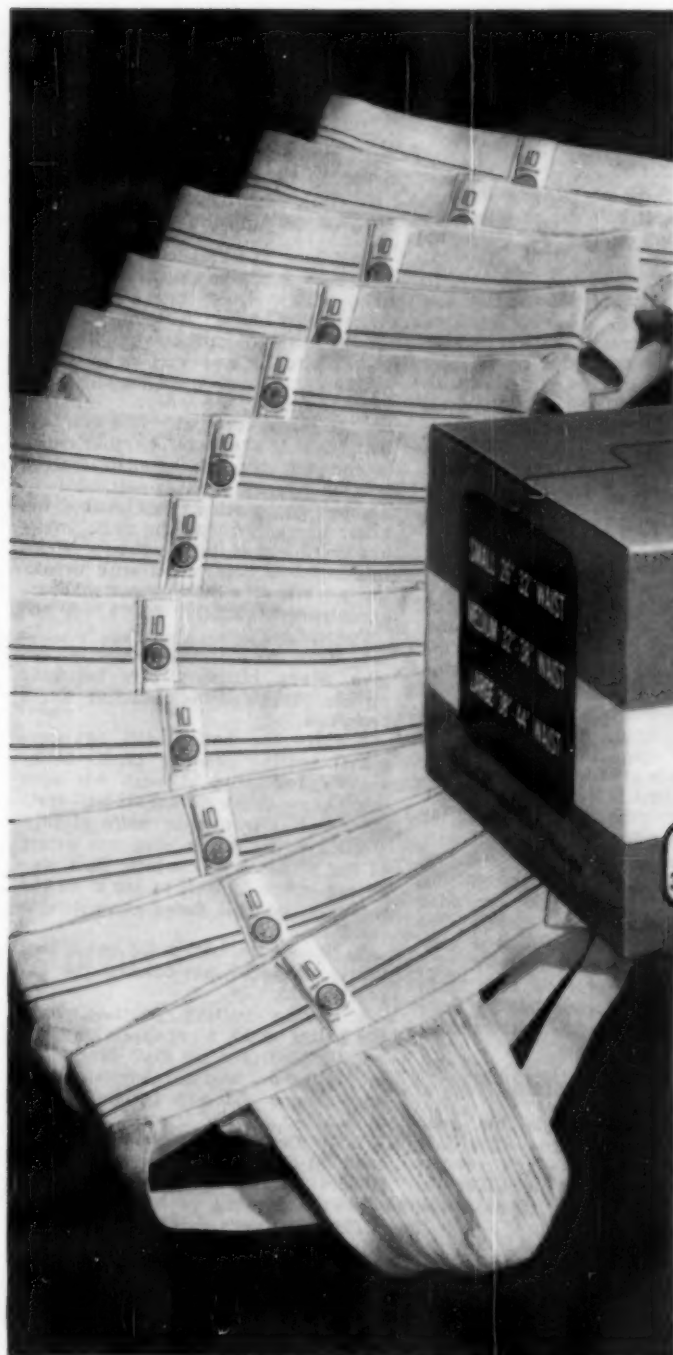
Corrections:

1. Have the hitter pivot his forward hip in toward the plate. As the pitcher is releasing the ball, the hitter should slowly push his bat back toward the catcher, thereby turning his front shoulder in toward the plate. Once his hips and shoulders have begun to turn in, the amount of the turn can be determined as the exact direction of the pitch becomes apparent.

2. To alter the hitter's follow-through, have him practice hitting the pitch and stopping on contact so that he doesn't follow through. He'll never be able to achieve a complete stoppage if the earlier portion of his swing has been correct, but he'll find himself following through toward the proper direction.

3. Adjustments in stance such as standing nearer to the plate and closing the stance will again force the pitcher to deviate from his initial pitching plans.

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NOT WATCHING THE PITCH

The habit of watching the pitcher and not the pitch is the undoing of many batters. It's a self-imposed batting handicap.

Corrections:

1. To make the hitter ball-conscious, suggest that he start following the ball as the infielders pass it around, or when the catcher throws it back to the pitcher.

A good practice technique is to have some one throw a number of different colored rubber balls. The hitter, or hitters, assume their stance and shout out the color as soon as they can detect it in the pitcher's delivery. This can be made into a game and used as an indoor or outdoor drill.

FEAR OF BEING BEANED

No matter how perfect the hitter's form may be, if he's the slightest bit afraid of being hit by the pitch, he won't be successful.

Corrections:

1. Provide batting helmets for the team.

2. Teach batters to bend under pitches thrown at their heads and actually have them practice this with sponge rubber balls being thrown at them. Keeping the weight back is important, since good weight control is essential in bending under pitches coming at the head.

HIGH STEP

A hitter occasionally comes along who lifts his front leg unusually high before striding into the pitch (a la Mel Ott and, to a lesser extent, Duke Snider). This, in itself, isn't a batting fault, but actually an extreme example of good batting form.

It matters not how high the front foot comes off the ground, but that it's free to step toward the pitch, that the hip is able to open, and that the body weight is kept back. In fact, asking a batter to raise his front leg higher is an effective means of correcting a lunge.

A high front leg lift, by putting extra weight on the rear leg, also keeps the hitter from moving his rear foot which, in itself, is a hindrance to good batting form.

An instance in which a high front leg lift can disrupt good batting form is when it results in the batter dropping the rear shoulder.

DROPPING REAR SHOULDER

When a batter drops his rear shoulder it leads to two difficulties: he tends to uppercut high pitches and causes his front shoulder to come up, hindering his view of inside pitches.

Corrections:

1. Have the hitter place his chin so that it touches his front shoulder. Not only will this tend to place and keep his shoulders in a level position, but he'll immediately feel his front shoulder begin to rise as his rear shoulder drops.

THIS is the fifth home run Charlie Itrace has clouted for Scholastic Coach since 1957. A former minor leaguer now coaching at Hunter College, Dr. Charlie has authored treatises on infield strategy, outfield strategy, a new type of sacrifice bunt, and developing a winning attitude. He'll be back next month with a piece on analyzing and correcting pitching faults.

2. Have the hitter practice swinging down at all pitches, above his belt. The hitter may gradually return to a more level swing as he defeats the habit of uppercutting and dropping his rear shoulder.

PULLING OR TURNING HEAD

Last and probably most important is the tendency to pull, or turn, the head away from the pitch. This causes the batter to take his eyes off the ball, making it virtually impossible to be any sort of a hitter.

One of the causes of such a fault is the desire to see where the batted ball is going, especially if a convenient fence is available. Another cause is constant practice against unchallenging pitches, such as soft, straight (lobbed in) pitches, that enable the hitter to easily judge the pitch, making looking at it less necessary. When this hitter is confronted with breaking pitches or a moving fast ball, he experiences difficulty.

Corrections:

1. Have the batting practice pitcher give every hitter a few breaking pitches, forewarning him to avoid beanings.

2. Have the batter take an occasional batting practice pitch, deliberately following it with his eyes into the catcher's mitt. This will train him to follow pitches more closely.

3. Have the hitter stop his swing at the moment of contact. This way he can check himself to see if he has watched the ball make contact with the bat.

4. Have each batter hit some batting practice pitches toward the opposite field.

5. During batting practice, have the batter make a conscious effort to see the ball hit his bat during his normal swing and to completely ignore where and how far he has hit the ball.

Yogi Berra once complained, "I can't hit and think at the same time." Hitters who try to do this often take strikes and swing at bad pitches.

Though hitters should always work diligently at correcting their flaws during practice, they shouldn't concern themselves with corrections during a game—except for static corrections such as in stance. With repeated practice, the hitter will someday find himself automatically doing the correct thing in the game.

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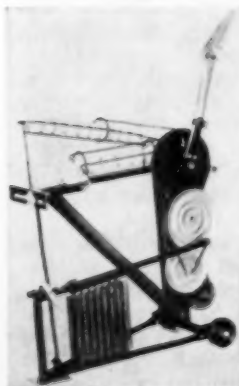
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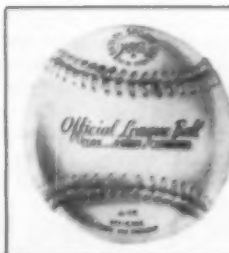


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Helpful Tips for Beginning Vaulters

SINCE the pole vault is such a complex event, it has been given careful and exhaustive study by both athletes and coaches. So intricate are its demands, however, that even the most penetrating studies leave parts worthy of more exploration and others which merit frequent repetition.

We find it difficult to include in a single article the many suggestions valuable to beginners and the fine points so important to the progress of accomplished vaulters. Only a treatise such as that produced by Dick Ganslen can possibly cover much of what can be said. But we hope this piece will be of some assistance to vaulters and coaches who are concerned with early stages of development. A few of the pointers may be of use to both beginner and expert.

When we coaches face our prospective pole vaulters for the first few times, most of us have certain physical characteristics in mind. We're looking for some sprint speed, good upper body development, some agility, and, perhaps, slimness and height.

It may be well to reflect that even when we find all of these factors we may still have a poor prospect unless he also possesses something a little less evident—a rather peculiar and specific type of courage.

Just as there's a kind of raw courage demanded of a high hurdler, who must lean forward and drive inches above the barrier, so too is the need for a special type of raw courage in a boy who'll be expected to almost literally stand on his hands on a pole while 10 or 12 feet in the air and then throw that pole away as he falls in assorted positions into pits of varying degrees of hardness.

Until your boy reaches the point where he's not afraid to swing those feet far above his head, he won't be much good to you as a pole vaulter. Not all boys possess this peculiar type of courage. A coach can overlook the lack of some very desirable physical characteristics if the candidate does have it.

During the early stages of work with your vaulters, you must have

*Stick to the one grip on
the pole that enables you
to get a smooth, easy run*

found it necessary to caution them about changing the height of their hand grip as the bar goes up. For most vaulters there's real danger in this practice. Once the boy has been given a satisfactory hand placement that will enable him to get a smooth, easy run, he should stay with that grip whether he's vaulting at nine feet or 12.

Only when he cannot carry the pole well in his run or when he has improved enough to warrant experimenting with a higher carry for all vaults, should he vary the hand height. Under no circumstances should he change from one height to another as the bar goes higher.

The vaulter in his run-up faces unique demands. True enough, the broad jumper and high jumper must concentrate upon the approach in order to get maximum spring at the right instant. The pole vaulter, in addition to facing the same demand, must place the pole in the box exactly right or meet disaster.

This may merely take the form of failing to get off the ground properly, but just as often it comes in the form of a shocking jolt that may wrench arm and back muscles severely. There is then a double penalty imposed upon the vaulter when his run is faulty.

The prospective vaulter must have the persistence to go down that runway with his pole dozens upon dozens of times to make his strides as even and automatic as is humanly possible. He has mighty

little room for error, if he's to get off the ground properly.

His last couple of strides are especially critical. Just as the broad jumper who overstrides to reach the take-off board is doomed to poor performance, so is the vaulter who overstrides to reach the take-off spot. He must be springing off that take-off foot, not finishing with the foot far in front of him so that he gets little or no lift as he leaves the ground.

Few coaches or athletes need to be reminded that the head must be directly beneath the pole at the point of take-off. Some may need to recall that the head then falls slightly to the left of the pole as the athlete springs into the air.

There's one more point worth attention in this phase of the vault, however. The coach should check carefully to see whether the boy is in too great a hurry to swing around and past the pole. His head motion is a give-away if he falls into this fault.

If he doesn't swing from directly under the pole and hold that position until he can see his knees above his hands, he's going to lose much of that valuable swing on the pole. He'll be starting his pull too early and probably will never get into correct position to start his push motion at all.

When your vaulter has mastered the swing and pull-up to a fair degree, it's time to check his movements as he tries to time the push upward. Most beginning vaulters have a tendency to leave the pole too soon. They never do let the pole get into the somewhat vertical position that makes it possible for them to push down on it. Most of them are trying to push upward from a pole that's falling away from them.

That, my friends, is a mighty questionable process. It's some trick trying to push your body weight from an object that has started to fall in the opposite direction! In fact, it just can't be done.

Don't expect your vaulter to master this phase of the vault without long, determined practice and constant coaching. You must see that your boy doesn't leave the pole too soon nor stay with it too long. The push must be fast and exactly timed

(Continued on page 42)

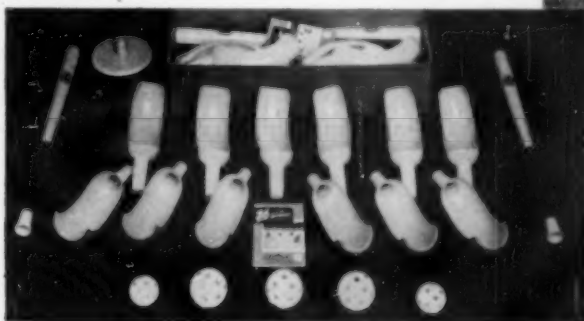
By W. HAROLD O'CONNOR, Coach, Concord Carlisle (Mass.) H. S.

low cost equipment for **GROUP ACTIVITY**



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You save 12% by purchasing the Group Kit below. It provides equipment for 20 or more children to play at once. You also save on space as feather-light, resilient Polyethylene prevents damage and accidents so groups play close together in safety. You save on supervisory time. You can bring outdoor games indoors; making group activities easier to plan, more fun for participants, more healthful. Safe-T-Play equipment promotes physical fitness the economical way.



SCOOP-BALL AND SAFE-T-BAT GAME KIT

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(12% savings)

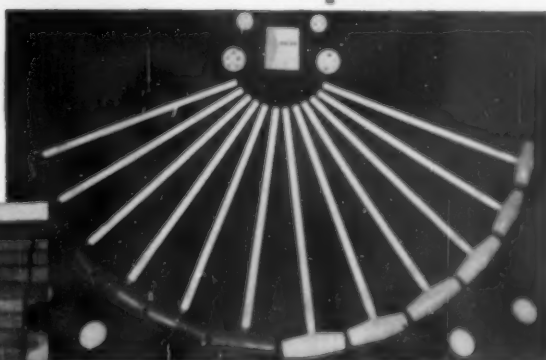
At 12% below their separate cost, you have (1) a bat tee (2) two Safe-T-Bats (3) 12 Scoops (4) book of 26 games (5) 2 Little Fun Balls (6) 3 Fun Balls. \$23.80 value.

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The remedial student, the shy or awkward child take part more readily with light, safe Safe-T-Play equipment. The normal aggressiveness of healthy children has a safe outlet. The subnormal aggressiveness of backward children is stimulated to expression. At the other extreme, varsity teams are conditioned by running games and contests organized around Safe-T-Play equipment for fast, hard activity that is safe.

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The pouch is a soft blend of rayon and cotton to offer complete support and retain its shape after repeated launderings. A full 3 inch waistband will not roll or bind. Non-curling leg straps remain flat and comfortable to wear. For convenience VARSITY Athletic Supporters are color-coded. A bright, color-fast label clearly marks each supporter size; green label—small, blue label—medium, red label—large.

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Johnson & Johnson First Aid Kits FREE (see other side) ▶



P-281
 *TRADEMARK © J&J-61

FREE

FIRST AID KIT

OFFER

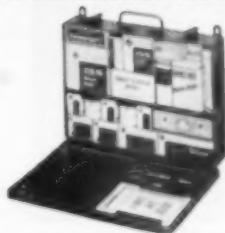


When injuries happen, first aid supplies are needed. Johnson & Johnson is pleased to announce a program that makes available **FREE** First Aid Kits with the purchase of **VARSITY** Athletic Supporters.

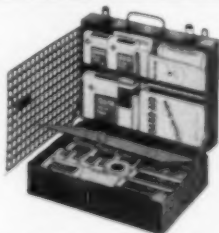
Each case of three (3) dozen bulk **VARSITY** Supporters will contain a bonus coupon redeemable for the first aid kits shown below.



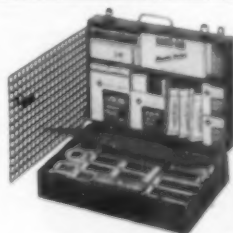
EMERGENCY FIRST AID KIT Retail Value \$7.50



GENERAL FIRST AID KIT Retail Value \$15.00



INSURANCE FIRST AID KIT Retail Value \$27.00



INDUSTRIAL FIRST AID KIT Retail Value \$33.00

With appropriate coupons, any assortment of kits may be ordered.

Johnson & Johnson

Coupons are redeemable only by schools, colleges and athletic teams. This offer is limited and subject to withdrawal without advance notice. All orders on file with Johnson & Johnson prior to any withdrawal date, will receive **FREE** First Aid Kits. © J & J 1961 *Trademark

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NEW EQUIPMENT

For full details on any or all of these products, check the respective listings under "NEW EQUIPMENT" in the master coupon on page 80.

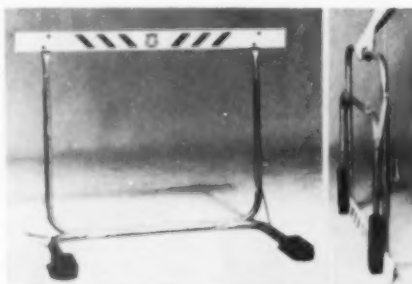


• **SCUBA DIVING KIT.** Rose Aviation presents a complete line of scuba equipment and accessories, including a portable kit. Features the trend-setting single hose "Pressure-Equalizer" Regulator System for safer, easier breathing.

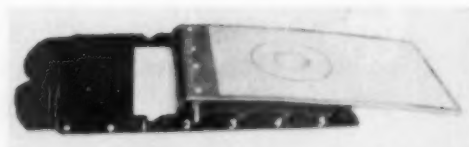


• **EASY READER STOP WATCH** features special dial for tenths, unusually large tenth divisions, and minute hand that reads off larger outer dial, making this Track and Field News item a highly practical timer.

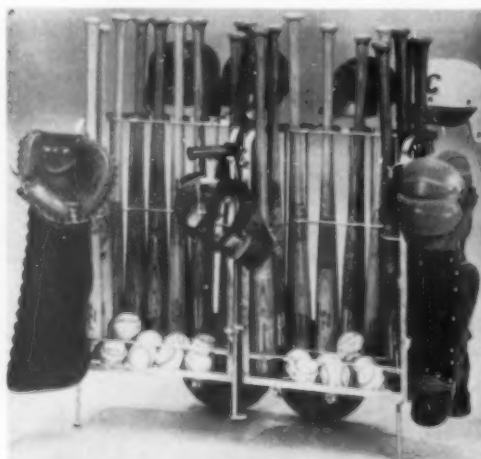
• **INVENTORY CONTROL SYSTEM.** Program Aids Equip-Trol simplifies all operations, telling user what's on hand, issued, out for reconditioning, ordered or to be ordered—a tremendous aid in planning and budgeting.



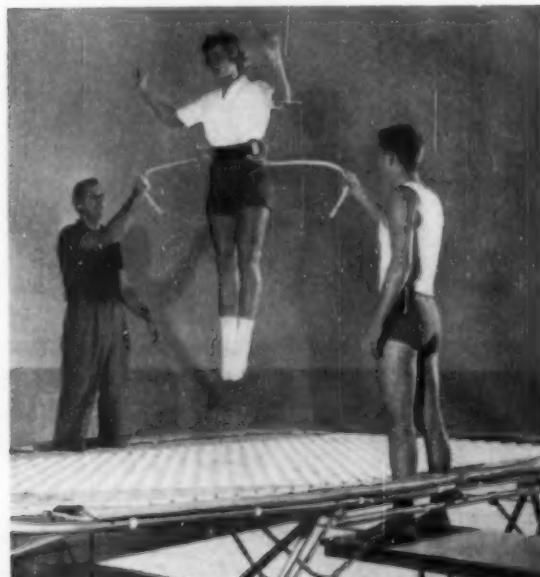
• **TUBULAR STEEL HURDLE.** Light, portable, easy to store, strong, the Stadium Hurdle is made of finest tubular steel, plated with zinc oxide to prevent corrosion. Adjusts from high to low, folds flat.



• **FIBRE-GLASS SPRINGBOARD.** Gymnastic Supply's Hi-Fli possesses non-skid surface and immediate adjustability, assuring superior performance and safer workouts.



• **BASEBALL EQUIPMENT CARRIER.** Lofar's Bat Boy holds complete team equipment neatly in place. Portable, compact (can be opened, as shown, or closed) strong (all welded steel), rustproof (zinc plated), attractive, handy.



• **SPOTTING BELT.** Nissen's lightweight belt is made of strong nylon webbing, with cushioned hip pads and 4' suspension ropes that can be connected to overhead spotting apparatus. Adjustable to any waist, it allows complete freedom of movement.



Why "black out" the receiver?

If your high school athletic field was built before 1950, chances are it is inadequately lighted.

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Principles of Good Control

(Continued from page 14)

follow-through, which can, in most cases, be achieved by a short shuffle-step with the pivot foot upon completion of the delivery.

6. **Overstriding.** This has already been discussed. It prevents the proper bending of the back in the follow-through and leads to the landing of the weight on the heel, which causes the ruinous jarring of the vision. It can be corrected only by the use of moderation in striding and the concentration thereon.

7. **Improper footing.** This is harmful to all aspects of pitching form. It can be caused by poor shoes or an accumulation of mud on the spikes. More often, however, the improper planting of the pivot foot is the contributing factor. The spikes shouldn't be placed on the rubber and the push-off made from that spot. Rather, the front spike should extend over the rubber at the start of the motion, the foot should pivot toward the pitching side, and the shoe should slide from the rubber and be braced against and parallel to it for the push-off.

8. **Poor physical condition.** This is definitely harmful to a pitcher's control, particularly in the late innings when fatigue begins to exact its toll. It should be emphasized that a pitcher's control is no better than his wind and legs—and a pitcher without control has nothing. Plenty of good, hard running is the logical solution.

9. **Mental factors.** Lack of self-control is displayed most conclusively whenever a pitcher becomes upset by poor support or infuriated at his own failings. Lack of courage—or, more accurately, lack of confidence—can be caused by an unfamiliarity with the game conditions or a lack of faith in one's ability to get the ball over with something on it. Aiming the ball is another fault which is essentially mental in nature, since it stems primarily from lack of confidence.

Experience under game conditions, a full realization of the percentages which lie in his favor, and the resultant faith in his ability comprise the proper mental outlook that will help a pitcher overcome these difficulties.

These faults are the most common causes of wildness. Where one of them exists, it's usually inadvertent and unconscious on the part of the pitcher. Careful self-analysis may uncover the root of evil. Cooperation from coach, manager, catcher, or a fellow pitcher is a more certain method of detecting a flaw.

Suffice it to say that if none of these basic faults is present in one's pitching style, the control problem will be greatly minimized—if not eliminated entirely.

When a pitcher's control is faulty, he must adopt an attitude both realis-

tic and optimistic. Mere hope and dogged persistence with his present style aren't enough; this amounts to expecting a divine miracle to rectify the situation. Informed, outside help should be sought and the proper therapy should be diligently applied.

CORRECTING WILDNESS

The pitcher, in setting out to improve his control, should realize that: (1) his wildness is almost invariably caused by a flaw in his delivery; (2) he must discover the source of his trouble and work hard to remedy it; and (3) the situation is far from hopeless—control can most definitely be improved by a sensible approach and a determined effort.

Experienced baseball men, in appraising the control problems of pitchers over a great number of years, have arrived at the conclusion that when wildness is consistent, it can be corrected—usually by an alteration in bodily movements which adjusts the pitcher's sights. This means that if a pitcher is throwing the ball consistently to one general area outside the strike zone, his trouble can be rectified.

If, on the other hand, his throws "go all over the place" with no regularity, he's releasing the ball differently on all of his deliveries, due to changing finger-pressures. Unfortunately, this is a bad situation, demanding a complete change of style, a fresh start, as it were.

Wildness is either horizontal or vertical in nature. In other words, a bad pitch is primarily inside, outside, too high, or too low. Of course, combinations of these qualities frequently occur, but consistent wildness will usually be confined to only one of these general areas.

The pitching rubber is 6 inches wide by 24 inches long. This 24 inch length provides a pitcher with sufficient space in which to make the adjustments needed to correct horizontal wildness. By moving to either side of the rubber, he can correct any horizontal wildness, the exact amount of the shift being determined through experimentation.

Both overall wildness and temporary loss of control on a horizontal plane should be treated in this manner. To cite a specific example: If a right-handed pitcher finds he's consistently wild inside in relation to a right-hand batter, he can eliminate this trouble by moving to his left on the rubber. A comparable application of this basic principle can be used to correct other instances of horizontal wildness.

Vertical wildness revolves primarily around the follow-through, and is greatly affected by the length of

Genuine Autographed



1961

LOUISVILLE SLUGGER

BASEBALL

WE MAKE THEM RIGHT • PERFORMANCE MAKES THEM FAMOUS



125 GENUINE AUTOGRAPHED LOUISVILLE SLUGGER—POWERIZED. Turned from choice, open-air-seasoned white ash with natural finish. Authentic autographed models of the twenty sluggers listed below comprise the No. 125 line. An assortment of not fewer than six models is guaranteed to each carton of one dozen. Packed 4/32", 5/34", and 3/35" bats in each carton. Shipping weight, 26 pounds. **Each \$4.60**

MODELS:

Henry Aaron
Richie Ashburn
Ernie Banks
Yogi Berra

Ken Boyer
Orlando Cepeda
Rocky Colavito
Nelson Fox

Al Kaline
Harmon Killebrew
Ted Kluszewski
Harvey Kuenn

Mickey Mantle
Roger Maris
Ed Mathews
Jackie Robinson

Bill Sherron
Duke Snider
Gus Triandos
Ted Williams

125S SPECIAL AUTOGRAPHED LOUISVILLE SLUGGER—POWERIZED. (Not illustrated). Quality and finish identical to No. 125 above, but turned to slightly smaller dimensions for the particular requirements of High School, Prep School, Babe Ruth League, P-O-N-Y Baseball, and other teen-age players. Listed below are the autographed models in the 125S group. An assortment of not fewer than six models is guaranteed to each carton of one dozen. Packed 4/32", 5/33", and 3/34" bats in each carton. Shipping weight, 24 pounds. **Each \$4.60**

MODELS:

Henry Aaron
Yogi Berra
Rocky Colavito

Nelson Fox
Al Kaline
Harmon Killebrew

Mickey Mantle
Roger Maris
Ed Mathews

Jackie Robinson
Duke Snider
Ted Williams

43 ASH FUNGO—GENUINE LOUISVILLE SLUGGER—POWERIZED. (Not illustrated). Quality and finish identical to No. 125 above. Each carton of one dozen contains three (34") infield and nine (37" and 38") outfield fungoes. Shipping weight, 20 pounds. **Each \$4.60**



125 FLAME TEMPERED—GENUINE AUTOGRAPHED LOUISVILLE SLUGGER. Turned from choice, open-air-seasoned white ash timber. Flame Tempered finish, and burn branded, the same as the bats used by many prominent major league hitters. Packed six authentic autographed models to each carton of one dozen. 4/32", 5/34", and 3/35" lengths. Shipping weight, 26 pounds. **Each \$4.60**

125S FLAME TEMPERED—SPECIAL AUTOGRAPHED LOUISVILLE SLUGGER. (Not illustrated). Quality and finish identical to 125 Flame Tempered above, but turned to slightly smaller specifications for the particular requirements of High School, Prep School, Babe Ruth League, P-O-N-Y Baseball, and other teen-age players. An assortment of not fewer than six models is guaranteed to each carton of one dozen. Packed 4/32", 5/33", and 3/34" bats in each carton. Shipping weight, 24 pounds. **Each \$4.60**



150 GRAND SLAM—Turned from select northern white ash timber, natural white finish. Patterned after the original models of the famous sluggers whose names they bear. Six authentic models guaranteed to each carton of one dozen. Lengths 4/32", 5/34", and 3/35" bats in each carton. Shipping weight, 26 pounds. **Each \$3.60**

150S SPECIAL GRAND SLAM—(Not illustrated). Quality and finish identical to No. 150 above, but turned to slightly smaller dimensions for the particular requirements of High School, Prep School, Babe Ruth League, P-O-N-Y Baseball, and other teen-age players. Six models guaranteed to each carton of one dozen. Lengths 4/32", 5/33", and 3/34" bats in carton. Shipping weight, 24 pounds. **Each \$3.60**



140S SPECIAL POWER DRIVE. Turned from fine white ash, natural white finish. Patterned after the original models of the famous sluggers whose names they bear, but turned to slightly smaller specifications for the particular requirements of High School, Prep School, Babe Ruth League, P-O-N-Y Baseball, and other teen-age players. Six models guaranteed to each carton of one dozen. Assorted lengths 32" to 34"; shipping weight, 24 pounds. **Each \$3.10**

Bats for PONY BASEBALL

Numbers 125S, 150S, 140S, and 130S (also the Junior and Little League numbers) are approved for PONY BASEBALL play. These numbers are particularly suitable for players of this age group.

Bats for BABE RUTH LEAGUE

Any baseball bat in the Louisville Slugger line not longer than 34" may be used in BABE RUTH LEAGUE play. However, the "specials" (125S, 150S, 140S, and 130S) are particularly suitable for players of this age group.

HILLERICH & BRADSBY COMPANY, INC., LOUISVILLE, KENTUCKY

Also Makers of Grand Slam Golf Clubs

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H & B**BASEBALL****BATS**

14W SAFE HIT. Finished in natural ash white and supplied in an assortment of famous sluggers' models in each carton of one dozen. Assorted lengths from 32" to 35"; shipping weight, 26 pounds. **Each \$2.70**



11B BIG LEAGUER. Black finish with white tape grip. An assortment of famous sluggers' models in each carton of one dozen. Lengths range from 32" to 35"; shipping weight, 26 pounds. **Each \$2.30**



130S SPECIAL SAFE HIT. Turned from ash, with rich dark maroon finish and natural white handle. Patterned after original models of the famous sluggers whose names they bear, but turned to slightly smaller specifications for the particular requirements of **High School, Prep School, Babe Ruth League, P-O-N-Y Baseball**, and other teen-age players. Six models guaranteed to the carton of one dozen, assorted lengths 32" to 34"; shipping weight, 24 pounds. **Each \$2.30**



9 LEADER. Light brown finish. Assorted famous sluggers' models. Assorted lengths, from 32" to 35"; shipping weight 26 pounds. **Each \$1.80**

THE New

LOUISVILLE NO. 500 BAT ASSORTMENT

with 18 Bats

is shipped in a hard hitting
FLOOR DISPLAY CARTON

Contains:

6 BASEBALL BATS—One each of models
125 Antique, 1255 Antique,
150S, 140S, 130S and 9.

4 SOFTBALL BATS—One each of
models 100W, 54, 52H and 50.

8 LITTLE LEAGUE BATS—Two each of models 125LL,
125J and J2. One each of models 125BB and JL.

All these bats are illustrated under their proper numbers elsewhere
shipping weight, 35 pounds per unit.....\$49.60



LOUISVILLE SLUGGER

and H & B

SOFTBALL BATS



54C "It's a Louisville" OFFICIAL SOFTBALL BAT—Bottle-shaped "Fast Swing" model. Made of ash and hickory, with ebony brown finish. One dozen in carton, 6/31" and 6/32"; shipping weight, 24 pounds. **Each \$2.20**



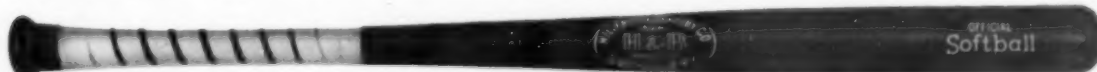
54L "It's a Louisville" OFFICIAL GIRLS' MODEL. Natural white finish ash with blue zapon grip. One dozen in carton, 33" length; shipping weight, 21 pounds. **Each \$2.20**

75 RB RAINBOW ASSORTMENT

75RB H & B RAINBOW ASSORTMENT OF "RED FLASH," "GREEN FLASH" AND "BLUE FLASH" SOFTBALL BATS. An assortment of softball models finished in bright red, green and blue with gold branding. Solid white tape grip. Four bats of each finish to each carton of one dozen, 6/33" and 6/34" lengths; shipping weight, 23 pounds. **Each \$2.50**



PG-1 "It's a Louisville" PLAYGROUND BAT. Ebony finish. Ash and/or hickory. White tape grip. One dozen in carton, 31" and 32" lengths; shipping weight, 19 pounds. **Each \$2.10**



52H OFFICIAL SOFTBALL BAT. Turned from ash and/or hickory and finished in ebony. One dozen assorted models to carton, 33" and 34" lengths; shipping weight, 23 pounds. **Each \$1.80**



PG-2 PLAYGROUND BAT. Black finish. Ash and/or hickory. Skip white tape grip. One dozen in carton, 29" and 30" lengths; shipping weight, 22 pounds. **Each \$1.70**



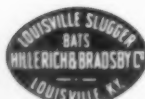
51H OFFICIAL SOFTBALL BAT. Turned from ash and/or hickory; maroon finish and gray zapon grip. Assorted models. One dozen to carton, 33" and 34" lengths; shipping weight, 23 pounds. **Each \$1.70**



50 OFFICIAL SOFTBALL BAT. Brown finish. One dozen assorted models to carton, 33" and 34" lengths; shipping weight, 23 pounds. **Each \$1.20**

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LOUISVILLE SLUGGER



SOFTBALL

INCLUDING BATS FOR PLAYGROUND AND INDOOR USE



125Y LOUISVILLE SLUGGER OFFICIAL SOFTBALL BAT. For the consistent hitter, a small-barreled bat with gradual taper to small grip. Finest selection of second-growth ash and/or hickory; antique finish. One dozen to carton, 6/33" and 6/34"; shipping weight, 22 pounds. **Each \$3.40**



125SP LOUISVILLE SLUGGER "SLOW-PITCH" SOFTBALL BAT—ASSORTED OFFICIAL MODELS. Designed for the rapidly expanding game of slow-pitch softball and the more experienced player preferring a bat with more heft. Antique finish ash and/or hickory. One dozen in carton, 6/33" and 6/34"; shipping weight, 24 pounds. **Each \$3.25**



125W LOUISVILLE SLUGGER "SPEED SWING" OFFICIAL SOFTBALL BAT—POWERIZED. Assortment of popular models packed in carton of one dozen. Turned from select ash and/or hickory. Finished in natural ash-white. Lengths, 6/33" and 6/34"; shipping weight, 22 pounds. **Each \$3.25**



125B LOUISVILLE SLUGGER "METEOR" OFFICIAL SOFTBALL BAT—POWERIZED. A splendid assortment of models that will meet requirements of the various types of hitters. Turned from select ash and/or hickory; maroon finish. One dozen in carton, 6/33" and 6/34"; shipping weight, 22 pounds. **Each \$3.25**



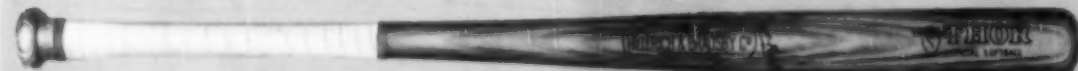
125C LOUISVILLE SLUGGER OFFICIAL SOFTBALL BAT—POWERIZED. "Fast-Swing" model for hitting fast pitching. Bottle-shaped large barrel that tapers quickly to small grip. Turned from select ash and/or hickory; natural white finish. One dozen to carton, 6/31" and 6/32"; shipping weight, 23 pounds. **Each \$3.25**

THREE NEW NUMBERS FOR FAST-PITCH SOFTBALL

The bats listed and described below are being introduced into the Louisville Slugger line for 1961. These new numbers, of authorized maximum size, are for those players who wish to use the new size fast-pitch softball bat measuring 2 1/4" in diameter. A rules change makes the larger bat official for fast-pitch only beginning in the 1961 season.



300A LOUISVILLE SLUGGER "ATLAS" OFFICIAL FAST-PITCH SOFTBALL BAT. Ash and/or hickory timber finished in natural white. White tape grip. One dozen in carton, 6/32" and 6/33" lengths; shipping weight, 22 pounds. **Each \$3.40**



300B LOUISVILLE SLUGGER "THOR" OFFICIAL FAST-PITCH SOFTBALL BAT. Turned from quality ash and/or hickory, gray antique finish. White tape grip. One dozen in carton, 6/32" and 6/33" lengths; shipping weight, 22 pounds. **Each \$3.25**



300C LOUISVILLE SLUGGER "MARS" OFFICIAL FAST-PITCH SOFTBALL BAT. Ash and/or hickory finished in ebony. White tape grip. One dozen in carton, 6/32" and 6/33" lengths; shipping weight, 22 pounds. **Each \$2.90**

LOUISVILLE SLUGGER H&B SOFTBALL BATS



LOUISVILLE SLUGGER "ROCKET" SOFTBALL BAT—ASSORTED OFFICIAL MODELS. A splendid variety of models—answers full requirements. Turned from select ash and/or hickory; ebony finish. One dozen in carton, 6/33" and 6/34"; shipping weight, 25 pounds. **Each \$3.25**



LOUISVILLE SLUGGER "ORBIT" OFFICIAL SOFTBALL BAT—POWERIZED. For heavy hitters—a bottle-shaped model with large barrel that quickly tapers to a medium grip. Turned from select ash, natural white finish. One dozen to carton, 6/33" and 6/34"; shipping weight, 25 pounds. **Each \$3.25**



LOUISVILLE SLUGGER OFFICIAL SOFTBALL BAT—POWERIZED. "Fast-Swing" model for hitting fast pitching. Bottle-shaped—large barrel that quickly tapers to small handle. Turned from select ash and/or hickory; ebony finish. One dozen in carton, 6/31" and 6/32"; shipping weight, 23 pounds. **Each \$3.25**



LOUISVILLE SLUGGER "VENUS" OFFICIAL SOFTBALL BAT—POWERIZED. For girl hitters. A small-barreled bat with gradual taper to a small grip. Natural white finish northern white ash. One dozen in carton, 33" length; shipping weight, 20 pounds. **Each \$3.25**



LOUISVILLE SLUGGER OFFICIAL SOFTBALL BAT—POWERIZED. Supplied in assorted softball models. Finished in brown antique—turned from high-quality ash and/or hickory. One dozen to carton, 31" and 32" lengths; shipping weight, 21 pounds. **Each \$2.90**



LOUISVILLE SLUGGER OFFICIAL SOFTBALL BAT. Assorted popular softball models of first quality ash and hickory. Oil Tempered—finished in saddle brown. Packed one dozen to carton, 6/33" and 6/34"; shipping weight, 23 pounds. **Each \$2.90**



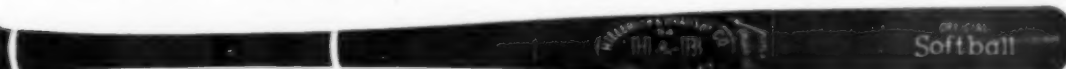
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82 CRACKERJACK BAT. Small boy's bat. Golden finish, burn branded. Three dozen in carton, 28" length only. Shipping weight, 45 pounds. **Each \$1.00**

the stride. A good follow-through, with the back bent and the pitching hand below and outside of the knee of the striding leg, is vitally important to good control and should be practiced continuously. Specific adjustments which may be needed can be effected by altering the length of the stride.

When a pitcher is wild high, he's releasing the ball too soon, and can remedy the fault by shortening his stride—a move which brings his body weight forward more quickly in relation to his arm motion, making for a lower point of release and promoting a better follow-through, both of which will help him to bring the ball down.

Conversely, when he's wild low, a lengthening of his stride should offset the faulty equilibrium which is causing him to release the ball too late and making his pitches consistently low.

Similarity of actions has already been noted as imperative to good control. Insofar as the stride is concerned, wildness is often caused by the lack of this desired sameness. The striding foot should come down in the same place and in the same manner each time one of the various pitches—fast ball, curve, change, et al—is thrown. A check of the footprints will reveal if this is being done, and an effort to stride in the same place for each pitch should cure any deficiencies.

The importance of keeping the eyes on a fixed target has already been emphasized, but it certainly merits reiteration. A pitcher should have a definite mark at which to throw, and his eyes should remain on that spot throughout his entire motion. Above all, his eyes should be focused on his target prior to any forward movement of his body. Otherwise his pitching will be tantamount to throwing at a moving target.

One method of assuring target fixation is to hesitate momentarily at the top of the wind-up. This allows for applied concentration on the target, free from any distracting movements, and is a definite boon to pitchers whose wildness stems from wandering eyes.

Control sometimes is affected by the presence of base runners. Chief cause of this is the failure of the pitcher to sight his target properly. The sideward stance presents a lesser view of home plate than the normal delivery in which the pitcher faces the batter squarely.

Two things should be indelibly impressed on a hurler's mind when he works with men on base: (1) look at the target with both eyes—the tendency in working from a stop-position runs counter to this; (2) never pitch from memory; in other words, take a good look at the target before delivering the ball plateward, even at the cost of allowing the runner an extra step or two of lead. If these two precautions are observed, a man's control with men on base should be no worse than it is with the bases empty.

A further word of advice on correcting wildness revolves around the desirability of acquiring a pendulum-like motion with movements primarily backward and forward in relation to home plate. Excessive rocking moves the head and eyes and causes temporary loss of the target.

An effective method of steering the ball toward the target and, at the same time, not disrupting the smooth, pendulum movement which helps control, is to turn the body further in the direction in which the pitcher intends the ball to go. The ball should, moreover, be released in the same way, the striding foot should point directly at the target, and the ball should not be aimed—all of which are merely reversions to the basic principles of good control.

The development of proper techniques and the application of corrective therapy where wildness exists can best be accomplished on the sidelines during practice sessions. When throwing for control, it's best to work from a mound. Having a batter stand in hitting position is also desirable and is, incidentally, beneficial to the pitcher in learning and familiarizing himself with the strike zone. The use of strings to outline the strike zone is also of great value.

Any of these devices can be fruitfully employed, with a combination of all of them ideal. Attempts at correcting wildness should always emphasize the need for giving every pitch a definite purpose—even in simple warm-up sessions.

The observance of the necessary measures for the particular case, the repetition of similar actions for each pitch, and the acquisition of the poise which comes with the proper mental attitude should do the trick for any pitcher desirous of achieving good control.


MENTAL SIDE OF CONTROL

Some pitchers seem to have good control naturally. Others succeed in developing it. Still others never acquire it. But the fact remains that *anyone* can improve his control unless he's convinced he cannot.

A pitcher's frame of mind is of tremendous importance to his overall performance in general and his control in particular. Confidence, poise, and, to a certain extent, competitive spirit are increased by the assurance which comes from familiarity with the job. All of them influence a pitcher's control and, paradoxically enough, at the same time are influenced by his control. There's a very close interrelationship between them.

The successful pitcher takes keen delight in outsmarting the hitter. He also realizes how strongly percentages will work in his favor if he throws strikes. Even when he cannot overpower a batter, he's fully aware that the best of them don't hit safely more than once in three times at bat. Thus, if he gets the ball over the plate with good stuff on it, the law of averages is definitely on his side. When he can



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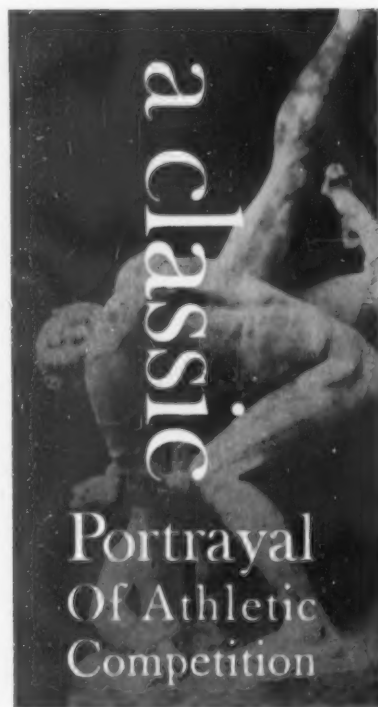
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stay ahead of the hitter and then put the ball in the general area of that man's weakness, he'll be well on his way to real success.

Yet there are pitchers who are actually afraid to put the ball over the plate. This indicates a lack of confidence in their stuff, and an unawareness of the way in which the percentages favor them. Even in batting practice, when the ball is "laid in there" for the hitter, more outs than hits are recorded.

A pathetic and too-often heard description of pitching ineptitude is, "He got behind the hitter and had to come in with a fat pitch." A survey has shown that in the major leagues a .250 hitter becomes a .350 hitter with the pitcher in the hole and, just as conclusively, a .350 hitter becomes a .250 hitter when the pitcher has him in the hole. These aren't exact figures, but they're close enough approximations to demonstrate the point that the pitcher who consistently falls behind the batter is committing baseball suicide.

Occasional and usually inexplicable wild streaks will arise to plague every

pitcher. These are all but inevitable occurrences, and the surest way to prolong one is to excessively worry over it. A pitcher must never allow himself to ease up and aim the ball in order to get it over the plate. Instead, he should combat the wild spell by firing away naturally until he once again finds the proper groove.

Pressure can also take its toll on a pitcher's control. There's actually no need for him to allow the situation to become too big for him. He must bear in mind that the hitter is in an equally tough spot. Furthermore, it's the pitcher who has the odds in his favor. He has eight other men waiting to help him, and the law of averages dictates that, even when the batter does hit the ball, it will fall in safely only a small percentage of the time.

The conclusions should be obvious. The pitcher who realizes the advantage lies with him, who exhibits poise and assurance at all times, and who has confidence in his ability to get the ball over the plate with something on it will have little difficulty with his control and can quite reasonably expect to be a winner.

Tips for Beginning Vaulters

(Continued from page 32)

as the pole reaches a vertical position.

It has been our feeling that most beginning vaulters flagrantly err in failing to "work" on the pole after they've left the ground. Too many boys begin in error by failing to spring forcibly upward from their take-off foot, and then continue in error by neglecting to make any appreciable effort to swing upward on the pole immediately before starting a strong pull-up at the right moment.

All of these things demand conscious effort on the part of your vaulter. Unless he combines the three stages of springing, swinging, and pulling upward, he hasn't done his work on the pole. And even when he has done these three things, he hasn't finished his work. He must still complete the effort with a vigorous push upward when the pole reaches its near vertical position.

With beginners, we've found it worthwhile to practice this series of motions without a bar to clear. At other times we've had them place the crossbar a couple of feet higher than they can actually clear, then try to kick the bar off. This is excellent practice for forcing the boy to get his feet high in the air. To do this he must really spring, swing, and pull.

Frequently neglected in the development of beginning vaulters is the matter of placement of the up-

rights themselves. We've found it advisable to move the uprights as much as a foot back of the back board of the take-off box. This enables the beginner to get a longer swing without hitting the crossbar. Because the beginner is rather slow and awkward in making the swing, he needs the extra time that the added distance to the bar will give him.

As you find your boy progressing, you'll find it important to experiment with the varying of the position of the uprights. It seems to us that too many coaches place too little emphasis on the position of the uprights.

You can get some idea of how important Don Bragg considers this factor by watching his meticulous attention to the position of his crossbar in relation to his pole placed carefully in a vertical position in the take-off box. It's not uncommon to see this world record-holder insisting that the attendants change the position of the uprights by as little as an inch, as he measures the clearance with his pole delicately balanced in an upright manner.

Since the rules provide for the movement of the uprights within set limits, we're foolish not to experiment with their placement to the advantage of our vaulters.

We're well aware that these pointers leave much unsaid about pole vaulting form.



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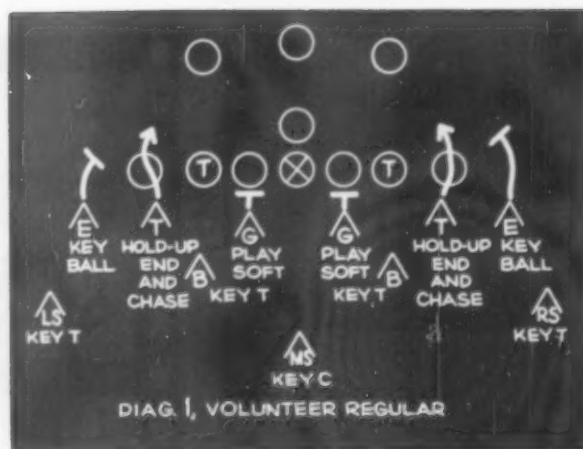
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By **PETE DYER**
Coach, Dobbs Ferry (N. Y.) High School

The Loose 6

Defensive Battery



AT DOBBS FERRY, we feel that the proper approach to team defense is to organize a *defensive battery* as soon as possible. A defensive battery is a basic defense from which many related stunts and modified alignments are employed to confuse the offensive system.

The basic defense must be taught quite thoroughly before the battery itself is developed. There should be a real purpose for everything embodied within the battery. You shouldn't include a lot of stunts and alignments just for the sake of having them. If they're not functional, they should be omitted from your battery.

Secondly, every stunt or modified alignment should be fundamentally sound from the team defensive standpoint. It wouldn't be sound, for example, to adequately defend your off-tackle areas at the expense of leaving yourself weak up-the-middle, even if your opponent runs off the defensive tackles 90% of the time.

For any defensive battery to be fundamentally sound, the segment of the battery being used at the time must provide excellent over-all defensive coverage, even though that particular segment is designed to nullify one particular offensive play or maneuver.

We feel that the biggest advantage of a defensive battery, such as the loose-6 battery presented here, is that it eliminates the problem of "what defense to teach this week." No matter what type of offensive system you're going to meet on Saturday, you'll always have several stunts and alignments that will com-

pletely frustrate the opponents' basic offense.

Since your boys have drilled on these things since the first or second day of the season, you'll be employing something that's "new" to the opponent, but just "routine" to your own defensive team.

In our defensive planning, we first take up the basic defense commonly known as the loose-6 or wide tackle-6. We found this to be an excellent team defense because it adequately satisfies the 10 defensive principles a basic defense should possess:

1. It must be a containing defense (allow no "homeruns").
2. It must have a forcing unit.
3. It must have a containing unit.
4. It must have a wide perimeter.
5. It must defend in depth.

IN 1958 the Dobbs Ferry (N.Y.)

Eagles enjoyed great success with an Oklahoma 5-4-2 Defensive Battery which Coach Pete Dyer described in the April 1959 Scholastic Coach. Never the one to let the grass grow under his feet, Coach Dyer went on to develop a simpler, easier-to-teach defensive battery modeled after the famous loose-6 employed with such devastating effect by General Neyland's Tennessee powerhouses of the late 1930's. This Loose-6 Defensive Battery helped Dobbs Ferry achieve an unbeaten season, being instrumental in holding the opposition to an average of less than six points a game.

6. It must pursue well for gang tackling.

7. It must keep the ball inside of and in front of itself.

8. It must have a *chase man*.

9. It must have a *contain man*.

10. It must make it difficult for the offense to score.

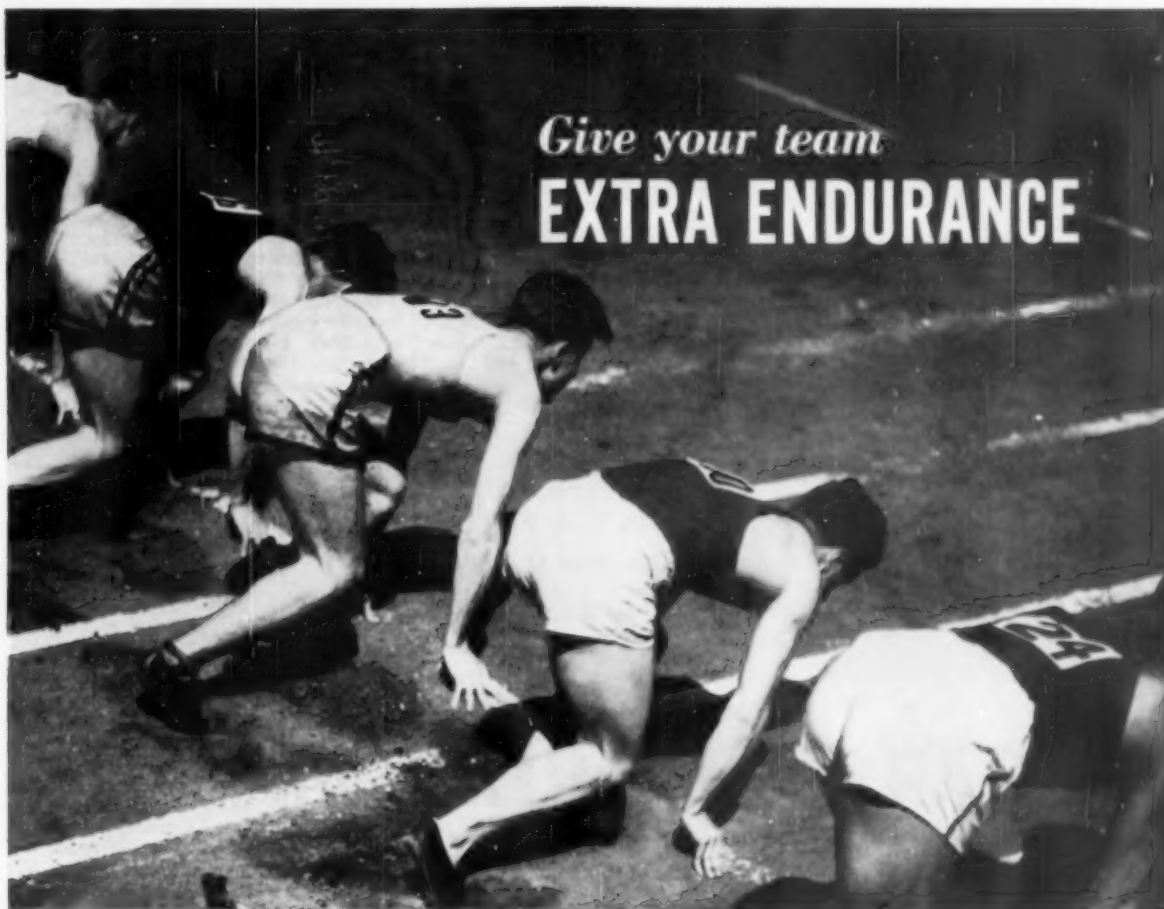
In this basic defense, the tackles, guards, and linebackers are dedicated to the *forcing unit*, while the ends and three deep safeties make up the *containing unit*. We call the defense Volunteer Regular (Diag. 1).

Guards take a three-point stance head-on the offensive guards. Each defensive guard places his outside foot forward and his inside foot to the rear, so that his body is open to the inside. At the snap, each guard takes a short six-inch control step with his outside foot, or forward foot, and hand-shivers the offensive guard in front of him.

Since the guards are in a heel-and-toe staggered stance, when they step with that forward foot they haven't opened up too much to be off balance. They must also be sure to play a good yard away from the hand of the offensive guard, so that they have ample time to get their arms straight out in front of them with their elbows locked and their hands on the shoulders of the offensive guard.

The guards are now in excellent position to slide to the inside and stop anything coming up the middle. Once they're sure that nothing is coming up the middle, they're in fine position to pursue to any point on the field.

The big secret to their success, however, is getting those arms locked straight out in front of them in order to keep the offensive guard away from their body, so that they cannot be blocked to the inside or outside. Play



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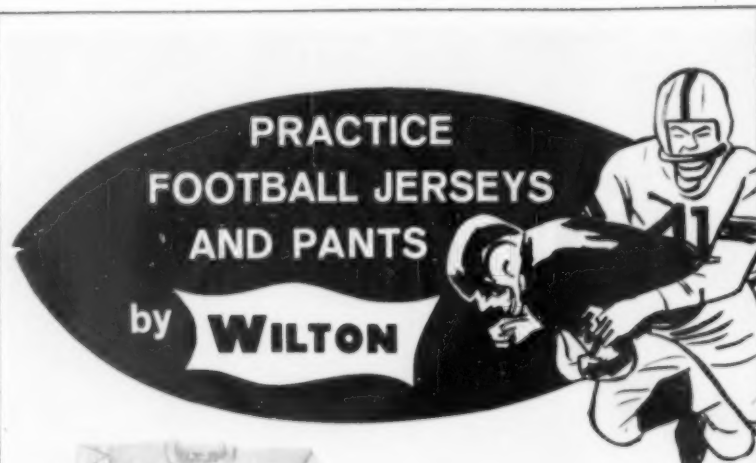
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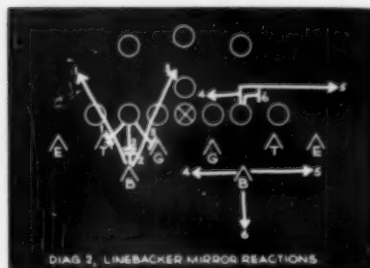


"MADE IN WARE TO WEAR"

it soft and pursue is the watch-word for the defensive guards.

The only time they penetrate into the offensive backfield from the regular defense is when a drop-back pass shows itself; and then they rush the passer from the inside-out, always on the look-out for the draw play coming back up the middle.

Linebackers line up on the outside shoulder of the offensive tackles, two yards off the line of scrimmage. They take a parallel stance and key the initial actions of the offensive tackles on each play from scrimmage. The tackle key will cause our linebacker to react in any one of six ways illustrated in **Diag. 2**. We call this the "mirror reaction," and drill upon it as the mirror reaction drill.



If the offensive tackle blocks out on our defensive tackle (reaction No. 1), our linebacker shoots the gap as close to the hips of the offensive tackle as possible. In this way, the linebacker will be in excellent position to fight off an outside-in trap from the offensive end or a flanking halfback.

If the linebacker sees the offensive tackle fire straight out at him (reaction No. 2), he steps up with his inside foot and inside forearm "flipper" and takes the sting out of the tackle's charge with a hard forearm lift. The linebacker then takes his proper angle of pursuit to the football to get in on the gang tackle.

Reaction No. 3 of the linebacker's key has the offensive tackle blocking to his inside on our defensive guard. When the linebacker sees this occur, he shoots the gap to the inside right off the hips of the offensive tackle. The linebacker is now in fine position to fight off an inside-out trap coming from a pulling lineman to the other side of the offensive line.

Reaction No. 4 has the offensive tackle pulling from the line and going to the inside. When this happens, our linebacker pursues the tackle's pull and follows him from the defensive side of the line. This will invariably lead our linebacker either directly to or very near the critical point of attack.

When the tackle pulls and moves to the outside, our linebacker moves with him in the same manner (reaction No. 5).

Reaction No. 6 occurs when the linebacker sees the offensive tackle jump back into a pass-protection block. This is the linebacker's key to move back quickly to the button-hook area for secondary pass defense.

Tackles line up on the inside shoulder of the offensive ends about one foot off the line of scrimmage. Their big job is to hold the offensive end up on the line as long as possible with their initial charge into the end.

The tackle places his outside foot forward in a heel-toe alignment, and he fires out of his three-point stance with a short six-inch control step with his outside foot. As he takes this short control step, the tackle brings his outside "flipper" forearm up hard into the end, forcing him very hard to the outside.

The offensive end must be forced to take an outside path in order to free himself of the defensive tackle. Whenever our tackles know that the ends are finding it difficult or perhaps even impossible to get to the button-hook areas, they'll be able to operate with much more freedom of movement. When the offensive end finally does free himself of the defensive tackle, the tackle forces the play hard if it's coming to his side of the line. If the play goes to the other side, he becomes the *chase man*.

As the *chase man*, the tackle must get into the backfield as deep as the ball, and chase the play around from behind the line of scrimmage, looking for a reverse, bootleg, or counter play coming back his way. If a drop-back pass should show, the tackles rush the passer from the outside-in, but not until after the end has been held up as long as possible and has finally escaped into the secondary defense.

Ends play about a yard and a half to two yards outside the normal offensive end, in a two-point semi-crouched stance with the inside foot forward in a heel-toe alignment. At the snap, the end steps up with his outside or rear foot, which opens his body to the inside. This puts him in fine position to see his key and make his play from the outside-in, if the ball should come his way.

The end's key is the football itself: "Ball come, I come; ball go, I go; ball go dropback pass, I fly into short flat area." In other words, if the ball comes his way in any form, either as a running play or a running pass, the end must come up and force the play fast and hard by getting as deep into the backfield as the ball itself and keeping outside leverage on the ball until help arrives.

If the ball should go away to the other side of the field, the end then becomes the *contain man* by hanging tough for a moment to make sure that nothing is coming back his way and then slowly rotating back of the line of scrimmage toward the ball. The end's rotating path must be one that puts him in good position to cover outside-deep to his side of the field should the offense attempt a cross-field pass off a running fake to the other side of the field.

The end must also be in good position to stop a cut-back play through the line of scrimmage, such as the now famous "Syracuse Scissors Play." If the offensive quarter-

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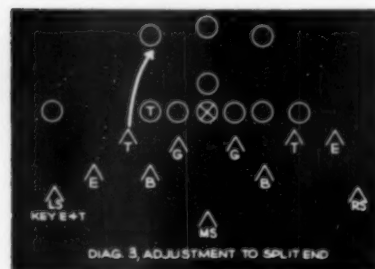
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back drops back from center for a forward pass, the defensive ends must fly back and to the outside quickly in order to take up secondary pass defense duties in the short flat areas.

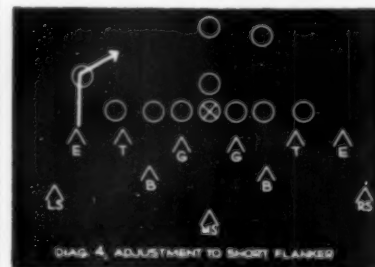
The final basic duty of the loose-6 defensive end is his adjustments to flankers and split ends. If the offensive end to his side of the field splits out, our end drops off the line a few yards and splits the difference between the split end and his own defensive tackle. The farther out the offensive end splits, the more our defensive end drops off the line of scrimmage. This maneuver blocks off the look-in path of the split offensive end (Diag. 3).



If a pass play develops from this offensive alignment, the end is already in his zone pass defense area, which is the short flat zone; and if a running play should develop to his side, the end is also in good position for outside-in control of the play.

In regard to flanker adjustment, the defensive end will play exactly the same whether the fullback or either halfback does the flanking. If the flanker flanks just a yard outside his own end and becomes what we call a "dirty flanker," our defensive end still has outside leverage on him; and our boy must use this leverage "right now" when the ball is snapped.

When the flanker assumes such a position, the chances are he plans to double-team our defensive tackle along with the help of his own offensive end, as would be the case in the Iowa Winged-T. Our end must play through the outside shoulder of this flanker and carry him into the backfield a bit in order to prevent this double-team block at the critical point of attack (Diag. 4).

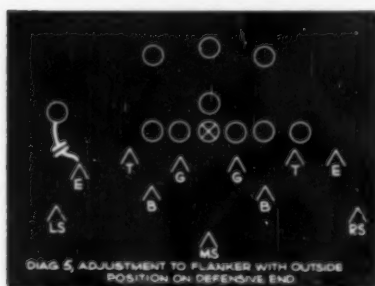


If the flanker assumes an outside angle on our defensive end, our end drops off the line two feet and comes head-up with the flanker. The defen-

sive end executes his normal key and normal assignment from this position.

If the flanker insists on getting outside position by moving to the outside until this is accomplished, our end does one of two things. First, if the flanker has gone a really long way out into the flat so that he's no longer a threat to block-in on our end, our end simply forgets him completely and continues to play as if the flanker were not there. However, if the flanker is still a threat to block our end in because of the flanker's nearness and outside position, our end comes off the line just as he does for a split end and makes his play from there.

This makes it very tough for the flanker. Instead of being able to quickly shoulder block the end to the inside, the flanker must now execute what adds up to an open-field block. The defensive end now has a great deal of maneuverability in this situation, and is in excellent position to fight a delaying game and still keep the play to his inside, thus containing the action until help arrives in the form of pursuit (Diag. 5).

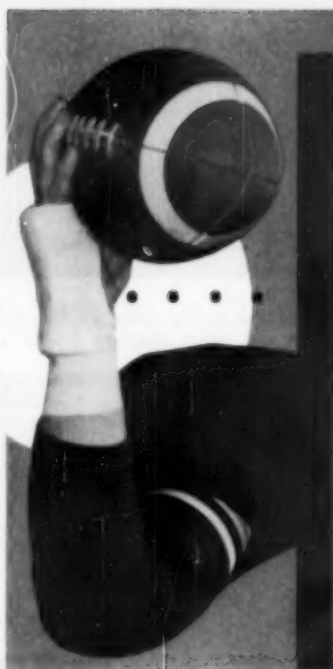


Left and Right Safety Men play about seven yards off the line of scrimmage and a yard outside their defensive ends. From their two-point stance, they key the offensive tackle to their side of the field. From the initial movement of the tackle, the safeties get a good idea of what type of play is to be run on any given down.

If the tackle indicates by his initial movement that the play will be a run to the safety's side of the field, the safety must psychologically gather himself to come up and support the play from the outside-in. I say psychologically because neither outside safety man should actually physically commit himself until he's quite sure that the play is a run to his side. If the play goes to the other side, the left or right safety man should slowly rotate to the middle portion of the field, always looking for a cut-back or counter play coming back toward him.

On a drop-back passing play, the left and right safety man take outside-deep zone coverage. Diag. 6 illustrates the duties of all the defensive men on a drop-back pass.

On an action pass to his side of the field, the left or right safety man covers the short flat area. This is a logical assignment since his key and the apparent running flow of the play



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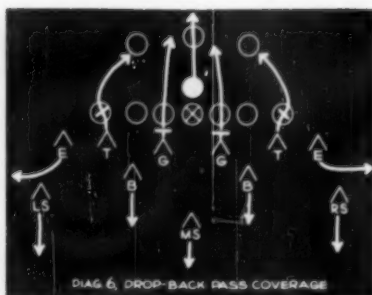
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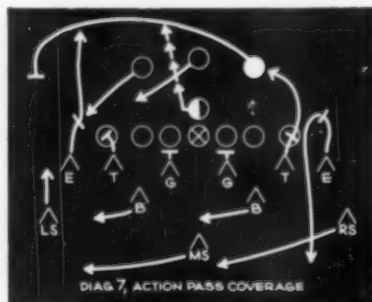
State _____

(if any)



will start the safety man up to support against what appears to be a running play.

The middle safety will be moving laterally with the offensive backfield flow into the outside deep zone coverage, while the off-side outside safety man will rotate into the deep-middle zone. The off-side defensive end rotates back into the off-side outside-deep zone, but not until he has made doubly sure that a reverse or counter isn't coming back his way. **Diag. 7** illustrates the total team coverage against the action pass.



Middle Safety Man plays head-on the offensive center, in a balanced-line attack, 10 yards off the line of scrimmage. His normal key is the offensive center. This lad's initial movements will seldom, if ever, mislead the middle safety man. After first keying the offensive center, the middle safety checks the backfield flow to help ascertain just where to find the critical point of attack.

This middle safety is our very last segment of defense, and he must never commit himself too soon or too hard for fear of allowing the dreaded "homerun ball."

On a drop-back pass, the middle safety has the inside-deep portion of the field to zone up. On an action pass, the middle safety takes the outside-deep portion of the field to the side of the backfield flow or running fake. **Diags. 6-7** illustrate the middle safety man's duties on both types of pass plays.

Now that the basic duties of each defensive man have been taken up, we move to the defensive battery itself.

Volunteer Shortside (Diag. 8). Whenever the football is on a hash-mark, we go into what we call Volunteer Shortside. This gives us an Oklahoma 5-4 set-up to the shortside

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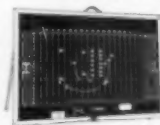
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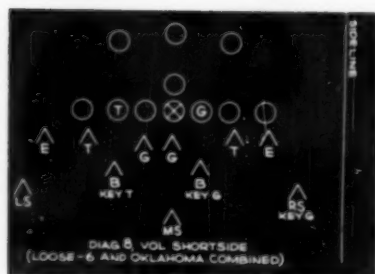
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and our loose-6 basic alignment to the longside.

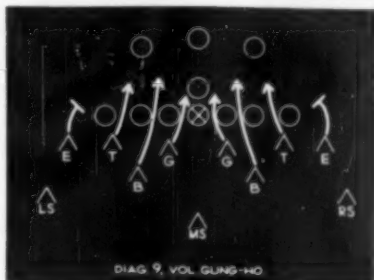
Moving into Volunteer Shortside necessitates movement by only four defensive players—the right guard moves over from head-on to the offensive left guard to head-on the center; the defensive tackle moves from the inside ear of the offensive end to the outside ear of the offensive tackle; the defensive right end moves from his loose-6, or Volunteer regular, position to the outside ear of the offensive left end; and the linebacker on the shortside moves from the outside ear of the offensive left tackle to the outside ear of the offensive left guard. All four men who have moved now play Oklahoma regular assignments.

This type of adjustment for the shortside can prove quite confusing to the offensive quarterback, who has been taught that an even defense is when both guards are covered and the

center is left uncovered, and an odd defense is when the center is covered and the guards are left uncovered.

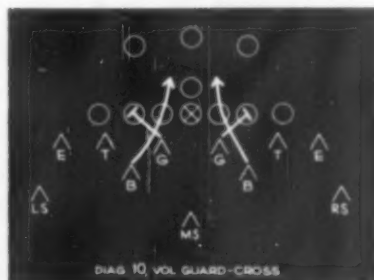
When we're in this shortside adjustment, is it an odd or an even defense? I don't believe that the offensive quarterback will know what to call it, and it will therefore pretty well confuse his change-up system—if he has been taught to first identify whether it's an odd or even defense.

Volunteer Gung-Ho (Diag. 9). In this stunt off our regular loose-6 alignment, the two tackles, two linebackers, and two guards all fire into the gap to their inside at the snap, while the two ends and three safety men play Volunteer Regular.



Thus, the soft-playing and containing loose-6 defense suddenly becomes the hard-nosed and penetrating gap-8 at the snap, and this is quite an adjustment for the offense to make in

a hurry. Chances are they won't make any adjustment at all. The offensive blocking rules will get all fouled up and the ball-carrier will be lucky if he even gets back to the line of scrimmage.



Vol Guard-Cross (Diag. 10). The guards and linebackers exchange basic responsibilities in this stunt. The guards fire into the offensive tackles from the inside-out, and the linebackers cross over to their inside and smash over the offensive guards. This seems to shake everybody up, adding to the confusion for the interior offensive linemen.

Vol Tackle-Cross (Diag. 11). This time the tackles and linebackers exchange basic responsibilities. The tackles fire into the offensive tackles from the outside-in, while the linebackers cross over to their outside (Continued on page 78)

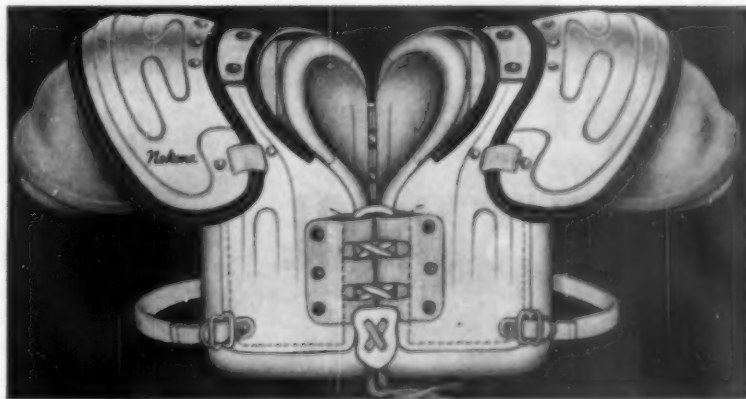
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1960 STATE HIGH SCHOOL FOOTBALL CHAMPIONS

THE CONTINUED employment of some form of T, almost to the complete exclusion of any other offense, highlights *Scholastic Coach's* fifth annual statistical survey of state high school football champions.

Of the 58 schools which replied completely to our questionnaire, all but three employed the quarterback under center—the three recalcitrants sticking to the Single Wing. Four schools reported using a multiple offense, but with the T as their basic formation.

Even Washington High of Sioux Falls, S. D., a Single Wing power in the past, reported that it now runs from a Winged T with an unbalanced line, with the Single Wing as its supplementary offense. 46 of the 58 respondents employed some secondary type of offense.

Two minor trends were noticed. First, some teams seem to be going to the pass more often than in the past few years. This is reflected in the figures on our top ten passing teams, which are considerably higher than in previous seasons.

The second trend is a natural offshoot of the first: Rushing offense average has dropped off somewhat for almost all schools. Last year, for example, 13 schools averaged better than 300 yards per game on the ground, but in 1960 only seven hit the 300 mark. Previous years showed an average of 12.

In all, 68 schools were queried, with six failing to reply by publication time. Of those replying 21 employed the Winged T as their basic offense, 15 used the Straight T, and 11 employed the Split T. In 1956, the first year of this survey, it was 28 using the Split T, 19 using the Straight T, and 6 using the Winged T. It's thus obvious that the Winged T is getting to be as fashionable as the "Jackie" hairdo.

Scholastic Coach has endeavored to be as fair and complete as possible in the listing of its champions, but since only 23 states award official championships we have had to rely on newspaper polls, rating systems, etc., to determine representative teams for each state.

18 champions were determined by elimination playoffs, so there can be no argument with them. 22 schools were both unbeaten and untied (a surprisingly small number), and in some states such as New York, where's there's no semblance of an intra-state program, we've had to simply select three outstanding teams to represent its type of football.

SEE PAGES 54-55 FOR COMPLETE 50-STATE CHART

In the chart on the next two pages, the last column indicates how the state championships were awarded. (The keys are explained in the footnotes.)

An interesting note comes from Delaware where Coach Dim Montero of Salesianum High, Wilmington, returned his questionnaire unanswered with the comment that he didn't consider his 1960 eleven worthy of championship stature.

Salesianum hasn't been beaten in its own state since Walter Camp was a youth, but it was licked by two out-of-state elevens this past season. It was listed in 1957, 1958, and 1959 with an overall record of 25-0-0. Coach Montero's proteges are playing college football these days as far away as Minnesota, and we're sure he'll come along with a "worthy" record in the near future.

Following are the 10 top rushing leaders (yards gained per game):

Omaha Central (Str. T)	400
Flint Northern (Wing T)	356
Midwest City, Okla. (Wing T)	319
Peoria Manual (Str. T)	318
Nashua, N. H. (Split T)	313
Buhl, Ida. (Split T)	306
Evansville Reitz, Ind. (SW)	305
Lawrence, Kan. (Split T)	299
Massillon, O. (Wing T)	298
Fort Thomas, Ky. (Str. T)	283

Omaha Central, Nebraska co-champion with Creighton Prep, with which it played a scoreless tie, showed the highest rushing average of our 1960 champions, an even 400 yards. This is just three yards short of our all-time high of 403 by Oak Ridge, Tenn., in 1958.

Flint Northern, always a power in Michigan, is away back with 356, then comes another large drop to 319 for Midwest City, Okla. Nothing else of significance is noted in these figures, the leaders using all forms of offense.

Following are the 10 leaders in passing, with their average yards gained per game:

Edina, Minn. (Slot T)	182
Beaver Falls, Pa. (Var. T)	171
Escondido, Cal. (Wing T)	157
Lakewood, Colo. (Split T)	146
Carroll, D. C. (Split T)	131
Fort Thomas, Ky. (Str. T)	123
Montpelier, Vt. (Str. T)	120
Creighton Prep, Neb. (Bear T)	110
Iowa City (Wing T)	109
New Rochelle, N. Y. (Multiple)	103

Three of the four leading passing teams boasted All-American quarterbacks, and the fourth had a boy who missed by a hair. John Hankinson was the boy who did most of the pitching for passing champs Edina-Morningside. Employing a
(Continued on page 56)

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State High School Football Champions, 1960

SCHOOL	COACH	RECORD	BASIC OFFENSE	SUPPL. OFFENSE	PTS. SCORED	PTS. AGNST.	YARDS RUSH. A GAME	YARDS PASS. A GAME	TOTAL	WT. LINE (Offensive Team)	WT. BACKS (Offensive Team)	2-WAY MEN	AWARD SYSTEM
ALABAMA	Lee (Montgomery)	9-0-1	Y	Slot T	282	53	207	74	281	190	165	8	NFA
ARIZONA	*Mean	10-1-1	Wing T		343	153	275	82	357	182	170	4	EPO
ARKANSAS	*Little Rock Central	12-0-0	Y	Flankers	259	34	215	30	253	180	160	5	LBR
CALIFORNIA	Sequoia (Redwood City) Alameda *Escondido *Banning, L. A. *Santa Barbara	9-0-0 9-0-0 9-1-1 10-1 11-1	Single Wing Wing T Wing T Single Wing Multiple	Spread Spread Spread	223 221 265 304 299	28 59 89 112 65	205 220 248 172 228	40 74 157	265 294 405	205 183 180 208 198	180 174 165 180 175	9 9 4 8 6	NFA NFA EPO CPO EPO
COLORADO	*Lakewood	12-0-1	Split T		436	85	228	146	374	190	165	6	EPO
CONNECTICUT	Fairfield Prep												PAA
DELAWARE	No championship awarded												
D. C.	*John Carroll	10-0-0	Split T	"Y"	239	20	121	131	252	209	181		CPO
FLORIDA	Miami Senior Tampa Hillsborough	8-0-2 10-0-0	Y Wing T	Wing T Spread T	244 221	80 20			295	185 188	160 170	0 0	NFA NFA
GEORGIA	*Valdosta *Waycross	12-0-0 12-0-0	Y Y	Spread Wing T	310 525	40 52	200 264	70 85	270 349	180 185	160 174	1 0	EPO EPO
HAWAII	*Kamohamcha	7-1-0	Split T	Spread T	252	51	203	69	272	187	162	11	LBR
IDAHO	Ruhl	10-0-0	Split T	Spread	385	65	306	79	385	173	161	5	OR
ILLINOIS	Evansston Twp. Naperville Rock Island	7-0-1 9-0-0 9-0-0	Wing T Wing T Wing T	Slot Split T Line End	223 214 214	40 52 50	253 118 243	49 47 46	302 405 291	189 187 185	157 168 162	9 9 9	OR OR OR
INDIANA	F. J. Reitz (Evansville)	9-0-0	Single Wing	Multiple	333	15	305	61	346	188	180	9	PAA
IOWA	Iowa City	8-1-0	Wing T		293	60	235	109	344	187	175	9	NPP
KANSAS	Lawrence	9-0-0	Split T	Split ends Isolation Series	242	27	299	47	346	174	161	6	NPA
KENTUCKY	Highlands (Fr. Thomas)	12-0-0	Y	Wing & Slot	432	64	283	123	406	167	159	8	PAA
LOUISIANA	*Jesuit (New Orleans)	11-1-0	Single Wing	Y & DW	353	73	271	92	343	192	171	7	EPO
MAINE	*Lewiston												SAA
MARYLAND	Loyola (Baltimore) Allegany (Cumberland)	9-0-0 10-0-0											OR OR
MASSACHUSETTS	*Brockton *Beverly *Chicopee	9-0-0 9-0-0 8-0-0	Y Wing T Wing T	Multi. T Slot T Double Wing	370 196 239	26 22 52	278 225 248	22 37 57	300 242 305	212 190 185	155 165 148	9 7 6	EMC EMC WMC
MICHIGAN	Flint Northern	9-0-0	Wing T		242	65	356	72	428	187	161	8	NFA
MINNESOTA	Edina-Morningside Robbinsdale	8-0-1 8-0-1	Pro Slot Split T	Wing T	302 300	42 46	257 269	182 68	439 337	191 198	191 176	3 6	NFA NFA

MISSISSIPPI	Provine (Jackson) Migame	Hollis B. Rutter Charles Callaway	10-1-0 11-0-0	Wing T Wing T	Slot T Variations	263 367	17 20	221 243	58 91	279 334	174 202	155 166	7 4	MBC NFP
MISSOURI	McKinley (St. Louis)	Julius D. Blanke	10-0-0	Wing T	Spread	226	45	252	32	284	180	170		OR
MONTANA	*Butte Public	Forrest Wilson	9-0-0	Wing T	Multiple	174	45				175	165	8	LEB
NEBRASKA	†Craighton Prep †Omaha Central	Don Lechy Frank Smogacz	7-0-1 7-0-1	Best T	Slot & Wing T	187 232	33 65	161 400	110 99	281 499	177 183	156 158	6	NFA
NEVADA	*Reno (Las Vegas)	Charles Roznic	4-4-0	T	Slot T	98	97	170	43	213	175	155	4	LEB
NEW HAMPSHIRE	†Bradley (Manchester) †Nashua	Edward Kissell Buzz Harvey	9-1-0 8-1-1	T Split T	SW & Split T Slot T	330 335	72 77	313	99	412	180 190	165 178	7 10	SAA SAA
NEW JERSEY	Phillipsburg	Harold Bellis	8-0-1	T	Plankers	129	52	184	31	215	176	156	6	NFA
NEW MEXICO	*Clovis	Steve Graham	7-4-1	Split T, Plankers		229	180	188	46	234	168	159	9	EPO
NEW YORK	Brooklyn Tech New Rochelle North Tonawanda	Adam Cirillo Lou Amerson George Vetter	7-1-0 7-0-0 8-0-0	Split T Multiple Multiple	Star HB Spread Start Post	207 247 242	78 22 40	183 250 228	58 183 42	241 353 266	194 192 192	186 170 178	11 4 5	CPO OR OR
NORTH CAROLINA	*Greensboro	Bob Janssen	11-1-0	Split T	Double Wing	268	59	254	19	273	180	166	7	EPO
OHIO	Mussillon	Lee E. Strong	10-1-0	Wing T	Slot & Spread	348	93	298	56	354	177	169	1	PAA
OKLAHOMA	*Midwest City	Jim Darnell	10-0-1	Wing T	Slot T	353	25	319	47	366	175	163	5	EPO
OREGON	*David Douglas (Portland) Mary Hebert		11-1-0	DW T	Slot & Wing	354	115	265	80	345	176	165	7	EPO
PENNSYLVANIA	†Berwick †Butte Falls †LeSalle (Phila.)	Ben Jones Lerry Brown John Flannery	10-2-0 9-0-0 10-0-1	Split T Variable T Loss End	Wing & I	290 283 214	71 70 40	249 211	85 171	334 382	198 179 194	180 165 175	7 7 6	OR WPIAL CPO
RHODE ISLAND	Mt. Pleasant (Providence)													LEB
SOUTH CAROLINA	Orangeburg	G. E. Runger	12-0-0	T	Slot & Spread	336	109	218	82	300	187	179	6	NFA
SOUTH DAKOTA	Sioux Falls Washington	Grant Heckelively	8-0-1	Wing T	Single Wing	229	59	377	62	339	182	182	7	NFA
TENNESSEE	Bennett (Kingsport)	Bill Jasper	9-1	Power T	Wing T	193	40	243	19	262	186	172	10	NFA
TEXAS	*Corpus Christi Miller *Brownwood	Pete Ragus Gordon Wood	13-1-0 13-1-0	T Wing T	Wingback Spread T	281 337	84 128	279	42	221	185 172	160 158	5 8	EPO EPO
UTAH	*Box Elder Co.	Les Dunn	10-2-0	Multiple		193	71	244	38	382	178	160	7	EPO
VERMONT	†Montpelier †Burford †St. Albans	Geo. Brown	6-1-0	T	Wing T	172	49	177	120	297	170	155	7	SAA SAA SAA
VIRGINIA	*Washington-Lee (Arlington)	John Youngblood	9-1-0	Wing T	Split T	193	49	176	59	233	182	162	0	LS
WASHINGTON	Everett													PAA
WEST VIRGINIA	*Weirton	B. J. Carey	10-1-0	Wing T	Plankers T	324	70	236	55	291	180	175	8	EPO
WISCONSIN	Green Bay West	John Shels	7-0-0	Wing T	T	171	49	308	72	280	182	177	9	OR
WYOMING	*Laramie	John Doh	9-0-0	T	Bully	340	27	349	87	336	151	162	11	LS

*Official champion; †Official co-champion.
 ‡Official Area champion.
 KEYS TO AWARD SYSTEM
 NFA—Newspaper Award
 PAA—Playoff Award
 LEB—League Round-Robin
 CPO—City Playoff
 PAA—Playoff Award
 OR—Outstanding Record
 NFP—Newspaper Poll
 SAA—State Award
 EMC—East Mass. Champ.
 WMC—West Mass. Champ.
 WPIAL—West. Pa. Champ.

(Continued from page 53)

pro slot type offense, installed by Billy Bye, former Gopher star, this Minnesota school averaged 182 yards and played a 20-20 tie with Robbinsdale, a member of its league, which shares state honors with Edina.

Beaver Falls, Pa., with All-American Joe Nemeth, the hurler, averaged 171 yards, followed by Escondido, Cal. (sparked by Doug Bennett), with 157 yards, and Lakewood, Colo. (with Mike Watson the chucker) with 146 yards.

Following are the top ten in total offense (rushing, passing, total average):

Omaha Central	400- 99-499
Edina, Minn.	257-182-439
Flint Northern, Mich.	356- 72-428
Nashua, N. H.	313- 99-412
Fort Thomas, Ky.	283-123-406
Escondido, Cal.	248-157-405
Peoria Manual, Ill.	318- 87-405
Buhl, Ida.	306- 79-385
Beaver Falls, Pa.	211-171-382
Lakewood, Colo.	228-146-374

Omaha Central's 499 yards total offense is the highest ever reported to *Scholastic Coach* in the five-year period it has been conducting surveys, nosing out Oak Ridge, Tenn.'s 1958 average by two yards. The Nebraskans gained 80% of their

yardage on the ground, and averaged 29 points per game. Five of the top ten used the pass frequently enough to account for over 100 yards per game of their totals.

Waycross, Ga., champion of the second largest enrollment group in that state but considered by many as one of the finest teams in Georgia history, was top-scoring champion with 525 points in 13 games, an average of better than 40 per game! Other scoring leaders were: Buhl, Ida., 385 in 10, and Fort Thomas, Ky., 432 in 12.

Only four schools reported offensive lines averaging better than 200 pounds. Brockton, Mass., at 212, was the heaviest. John Carroll of Washington, D. C., showed a 209-pound line; Redwood City, Cal., 205; and Magee, Miss., 202. Magee's average was brought down by two 160 pounders, one at guard and the other at end.

The coaches made some noteworthy comments. Here are a few:

John Deti, Laramie, Wyo.: "George Squires, our kicker, hails from England. Came to us as a freshman, used a soccer style kick, had an average of 48 yards on punts, 95% on PAT's." Laramie had a line averaging only 151 pounds, so that extra kicking yardage must have given them a little needed rest.

Steve Graham, Clovis, N. M.: "One of our halfbacks ran eight touchdowns against one opponent, but had three called back. His total yardage on these forays was 428."

Priority System in Catching Fly Balls

(Continued from page 26)

rate this should be discussed to eliminate all doubt.

Fly balls hit along the baseline between the third baseman and the catcher should be handled by the former because the ball moves toward him. The same is true on plays between the first baseman and catcher.

The play of the pitcher can be controversial. The professionals keep him out of the play as much as possible. In collegiate and scholastic circles, the situation is a little different.

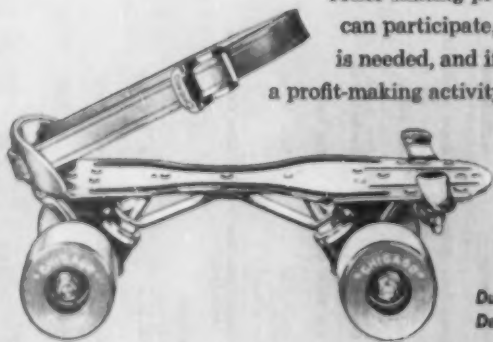
The pitcher is usually one of the better and surer players at these levels, so that on fly balls between pitcher and catcher it's usually much safer to have the pitcher handle the ball. It's also a much easier play for the pitcher, as the ball moves toward him.



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On balls hit high and deep enough so that it becomes a question whether the pitcher or an infielder should field it, then the infielder should take the play. The pitcher should move to field fly balls, however, because he may be the only one who can reach certain little pop-ups.

Once the question of priority is understood and the cardinal principles on fielding fly balls have been thoroughly reviewed, the next step is to incorporate all these ideas into practice.

One fungo hitter can keep an entire team of nine players very busy. Send the team out to its positions, pitcher as well, and have the fungo hitter take a position at one side of the plate. If the catcher wears his equipment, he'll derive more benefit from the drill.

To speed things up and keep the players moving, the fungo hitter can employ several balls. By hitting alternately toward the left side of the field and then toward the right, with an occasional pop-up behind the plate for the catcher or very short for the pitcher, the fungo hitter needn't wait until each fly ball is caught and returned before hitting the next. A substitute player stationed alongside the fungo hitter can field the throw-ins and feed the batter.

In this way, an almost continuous stream of fly balls can keep the team on its toes. Fielders should be instructed to roll the ball back to the feeder to avoid accidents; and if extra players are available they can be used as halfway men for the outfielders to reduce the length of their throws and to insure more accurate throws to the feeder.

Several 20-minute drills of this type will set up a habit pattern that will give a team complete confidence on this play. After this devote a few minutes to it every time the team has defensive practice.

Periodic review will prevent players from forgetting what's expected of them on fly balls.

COACH-OF-THE-YEAR CLINICS

THE American Football Coaches Assn., under the guardianship of Duffy Daugherty, Murray Warmath, and Bud Wilkinson, has been conducting a series of Coach-of-the-Year Football Clinics throughout the country. Featuring the greatest coaches in the land, these two-day clinics are reasonably priced and comprehensive in scope.

Four clinics have already been held. The four remaining ones are scheduled as follows: Birmingham, Ala., March 17-18; Springfield, Mass., March 17-18; Harrisburg, Pa., March 24-25; and Raleigh, N. C., March 31, Apr. 1.

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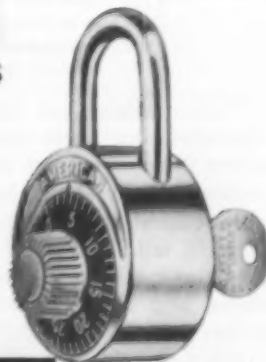
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COACHES' CORNER

What Is an Official?

By **PETER BILLICK**
Rochester, New York



BETWEEN the exuberance of the winner and the downhearted dismay of the loser, we find a creature called an official. Officials come in assorted sizes and shapes, but usually are dressed in the same type of uniform. All, however, have the same creed—to watch every play of every quarter of every game and to call the plays to the best of their ability as they see them.

Officials are found everywhere—on the field, in the gym, on the track, on the mat, on the diamond, in the pool—on top of, running around, jumping over, climbing through, and always with whistle ready, looking, looking, looking for some infraction.



Fellow officials rib them, athletes tolerate them, spectators boo them, coaches criticize them, wives adore them, sons and daughters idolize them, and mothers worry about them.

An official is Courage in cleats, Spirit in stripes, Wisdom with a whistle. Despite the fact they get paid for their work, they have a devotion to duty above and beyond their obligation to their employer.

When the game is close, the officials are incompetent, indecisive, and stupid. When it is one-sided, they are merciless, whistle-happy, careless, and domineering.

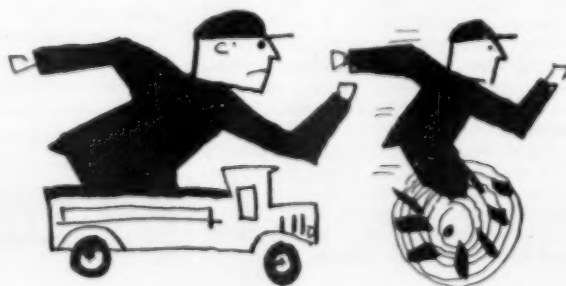
An official is a composite. He looks like a gentleman, acts like a traffic cop, is as fussy as an old grandmother with her sewing basket, as immaculate as a debutante, and as big a ham as Elvis Presley playing Hamlet in Madison Square Garden.

To himself, an official has never missed a play, called a ball a strike or split a second incorrectly with a stopwatch. He has the eyes of an eagle, the keen mind of an Einstein, the judgment of Solomon, and the speed and grace of Joe DiMaggio and Jesse Owens all rolled into one.

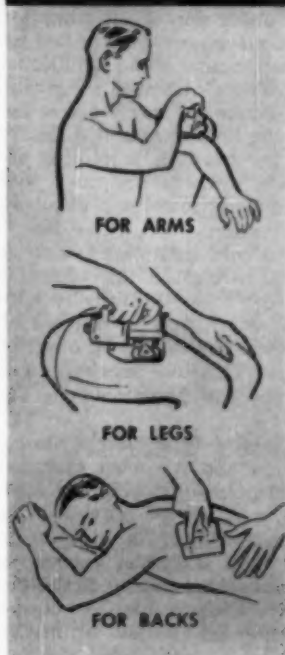
To the men who work with him, he is always out of position, runs like a truck, steals calls from under his partner's nose, is blind as a bat, stupid as a mule, and is utterly incapable of making a correct decision on anything except who should drive.

An official likes trips out of town (with mileage), few training sessions, well-coached teams, considerate coaches, polite players, dry fields, cool, crisp days, and the quiet satisfaction of having been a part of a perfect day. He cares not for wet games, tough decisions, screaming coaches, and irate fans.

An official is a wonderful creature. You can criticize him, but you can't intimidate him. You can question his judgment, but not his honesty. He is the symbol of fair play, integrity, and sportsmanship. He is a hard-working, alert, determined individual who is making a great contribution to the American way of life through athletics.



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Sprained Ankles

(Continued from page 24)

injury, sleeping with a pillow under the foot will aid in keeping the swelling under control. Resumption of strenuous physical activities too soon, may cause some additional swelling. There's no need for alarm. Merely elevate the ankle above the level of the heart again and gently squeeze the swelling, a milking effect, down towards the thigh and calf. A cold wet towel will also help in this situation.

Hot and cold treatments, such as previously discussed in "General Care of Soft Tissue Injuries" (October 1960 issue), may be applied 36 to 48 hours after the initial onset of the injury. This will accelerate the removal of the hematoma in the area.

If an ankle is sprained during competition and it's most essential for the athlete to continue to compete, he may do so only after a liberal spraying of ethyl-chloride followed by a strapping applied so that an outward twisting of the ankle is almost impossible. The strapping should be applied while the foot is in an inward twist position (eversion).

Start the taping on the inside of the foot, over the arch. Carry it around and under the arch at an angle that will place it on the outside of the foot directly over the ankle bone—the lateral malleoli. Then bring the tape up two or three inches above the ankle. Repeat on the opposite side.

An overlay of two or three strips will give the weakest ankle firm support with the least amount of friction in dorsi and plantar flexion—the normal movement of the foot in walking or running.

Anchor the strapping with one or two strips of tape at both ends. Never pull on the tape, but place it gently upon the skin.

This strapping may be utilized as a preventive measure, such as is needed in football and basketball, but it should never be used as a substitute for exercise.

This of course isn't an ideal approach, but extreme emergencies sometimes do arise and it's important to know what can and can't be done on such occasions. The previous treatment should be administered as soon as possible. It's only natural that the healing will be retarded by several days if such a procedure is followed.

Now that the damage has been done, let's try to strengthen this area and reduce the chances of fu-

ture sprained ankles.

One of the easiest methods of strengthening the ankles is through toe raises on the edge of a step. The feet are exercised in three different positions: (1) toes pointed in, (2) toes pointed out, and (3) feet parallel.

Stand on the balls of the big toes and raise the heels as high as possible, then lower your heels as low as possible, below the level of the step. Do 10 to 15 repetitions for each position, and as your ankles get stronger do 2 or 3 sets in each position.

Resting a barbell on your shoulders is an advanced method of training. A complete description of weight training will be described in a future article, "How to Lift Weights."

Running Form

(Continued from page 18)

3. Make sure you do some form running daily. This is best accomplished in the sprints by running $\frac{3}{4}$ speed, emphasizing relaxation and elements of good form. In most instances it's best to concentrate on one aspect of form at a time, rather than trying to do too many things at one time. Periods of concentration that aren't too long will be most effective—work 5-10 minutes on knee lift, another 5 minutes on arms, etc. Utilize your drills and other aspects of your workout to get the most from them regarding form.

In doing this, run 220 at $\frac{3}{4}$ speed, jog slowly back to start, continuing in this alternating manner until you've completed the desired time. In other events, you can do the same thing, running 220 or 440 as the basic distance. Whenever you run and whatever the distance, always be form conscious; it's the way you'll get maximum results from your energy expenditure.

4. Help your teammates—point out the good aspects of their form and help them find the elements that need strengthening.

5. Know what good form is—have a mental picture of ideal form for your events and strive to become the picture of perfection.

6. Analyze movies and pictures dealing with running form. Read all you can about running so that you'll become an expert in the field. Remember, all movies, pictures, and articles won't agree and that you cannot and must not accept things simply because you see, hear, or read them. Become a critical observer and a real student of running and running form.

7. Attack your practice sessions and meets with the axiom, "If it's worth doing, it's worth doing well."

8. Make your creed: "The difficult I will do immediately; the impossible will take a little longer."



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*American Pub. Health Assoc., Oct. 15, 1954

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9. Make today's best tomorrow's starting point.

10. Improve daily as a trackman—if you don't, everyone's time and effort has been wasted.

11. Watch your own improvement; set your goals high and you can't help but be successful.

12. Don't take hot showers or baths the day before or the day of a meet. Don't sap your energy unnecessarily.

13. Avoid all carbonated drinks; this will insure maximum oxygen and thus energy when you need it in competition.

14. Be sure to do "squat jumps" (with and without resistance) and "two-man leg resistance exercises" daily to help develop maximum leg power.

15. Make your breathing as natural as possible. Avoid thinking about it and it will take care of itself. If you have difficulty, check for help. In some races, devices can be helpful.

RUNNING INFRACTIONS

1. In races run in lanes, each competitor must stay in his lane during the entire race.

2. In a race involving a curve and where lanes aren't specified, a runner may change lanes toward the inside or outside only when he's one full running stride (about seven feet) in advance of the runner whose path he crosses.

3. The following may be disqualifying infractions:

(a) Jostling another runner.

(b) Illegally running across the path of a competitor.

(c) Impeding another runner.

(d) Deliberately running on or inside of the track curb.

(e) Illegally running outside of your lane.

(f) Pacing (by teammates not in the race; includes along the inside of the curb as well as on the track itself).

Advice and Dissent

(Continued from page 5)

practice to produce a winner. But that's no excuse for sadistic excesses.

One of the country's newly crowned coaching geniuses proudly attributes his success to a mid-September "death march." After a sloppy scrimmage, he ran his charges through an hour of field-length sprints on simulated punts, topped by 90 minutes of stop-and-go sprints. Several players collapsed, one went to the infirmary, and some never came back. (Are we to assume they died?)

But from that "death march," our rather frightening genius concludes, a spirit grew that carried the team to the heights. "Sure it hurt," the coach says, "to see some good players drop out. You think, 'There goes a guy who might have won me a few ball games.' But you're wrong. It doesn't work out that way. He doesn't win any ball games."

The coach may be right. The guys who refuse "to pay the price"—the current euphemism for refusing to kill yourself—may not win any games. But their only failing is that of exercising intelligence. It doesn't take courage for a student athlete to go on a "death march." It just takes senselessness.

If this coach were smart, he'd stop spouting such nonsense. That's just the sort of stuff that makes football suspect to the layman. Can you visualize the parents of our younger boys reading this and saying to themselves, "If that's what Johnny has to do to make the foot-

ball team, we don't want any part of the game."

If ever and whenever winning football becomes a matter of subjecting the body to inhuman stresses, it will cease having any meaning.

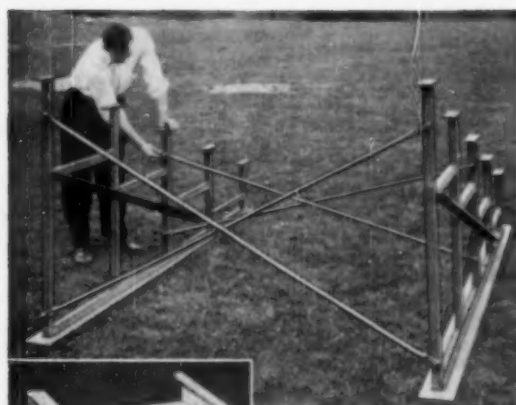
ONE thing you can't say about very many football teams is that "they don't have a prayer." It's now something of a tradition—and a very nice tradition—to offer a little prayer before going out to knock the other guys' blocks off.

One of the nicest of these pre-game benedictions is the one composed by Coach Bobby Dodd of Georgia Tech for the Pop Warner Football League:

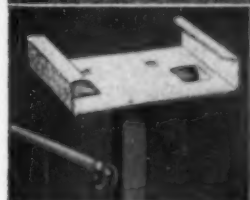
*Dear Lord, we huddle before we play
To Thank You for Your care each day;
To ask Your guidance as we play life's
game;
To win with grace, lose without shame.
Make us always unafraid to be
Athletes truly representative of Thee.*

DURING the short, abortive life of the Continental League and the subsequent skulduggery connected with the expansion of the two big leagues, our big league moguls hardly covered themselves with glory. Their cupidity emerged clearly and pitifully, making them fair bait for this classic remark from Red Smith, the urbane syndicated sports columnist:

"When Gene Autry got the Los Angeles team, it marked the first time a franchise had been acquired by a whole horse."



(ABOVE) Assembly of steel structure is completed by attaching cross braces to frames with wing nuts.



(LEFT) Optional slide plank holders for frequently disassembled bleachers.

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(ABOVE, CENTER) 5-row Budget Master bleachers. (ABOVE, RIGHT) 10-row section with guard rail. Elevated front cross aisle and 15-row assembly also available.



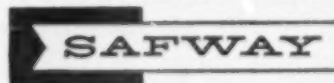
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A 5-row, 6-ft. Budget Master seats 20 persons economically. For more capacity, increase the length or add rows. Budget Master can provide over 10,000 good seats around a football field.

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100-Yd. Dash	9.3	Evansville, Ill.	5/14/55
100-Yd. Dash	9.3	Fresno, Calif.	5/12/56
100-Yd. Dash	9.3	Durham, N. C.	5/ 5/56
100-Yd. Dash	9.3	Texas Relays	4/ 6/57
100-Yd. Dash	9.3	San Jose, Calif.	4/ 2/50
100-Yd. Dash	9.4	Arlene, Tex.	4/27/57
220-Yd. Dash	20.9	Banger, Calif.	6/ 3/56
220-Yd. Dash	20.2	Los Angeles	5/ 7/48
220-Yd. Dash	20.1	San Jose, Calif.	1960
440-Yd. Run	46.2	Salt Lake City	6/21/47
440-Yd. Run	46.0	Berkeley, Calif.	6/ 3/48
440-Yd. Run	45.8	Modesto, Calif.	5/25/50
120-Yd. H. W.	15.5	Fresno, Calif.	5/15/50
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- **COACH'S GUIDE TO DEFENSIVE BASEBALL.** By Archie P. Allen. Pp. 214. Illustrated—drawings and diagrams. Englewood Cliffs, N. J.: Prentice-Hall, Inc. \$4.95.

ONE of the country's top college coaches (Springfield College), Archie Allen is thoroughly familiar with all the in and outs of the game and, from long experience conducting baseball clinics all over the Western Hemisphere, knows precisely how to present his points graphically and fully.

His book offers a complete guide to the defensive side of the game. In a clear, highly authoritative fashion, he covers every aspect of defense.

In Part 1, he tells you how to select players, normal defensive procedure, defensive strategy, and defensive terminology.

Part 2 covers the individual fundamentals for fielding, throwing, pitching, catching, first base, second base, shortstop, and outfield—including all the methods of making the double play.

Then, in Part 3, he brings everything together in coordinated team defense. He enlarges upon fielding positions, pitcher covering first, cut-offs, bunt defense, pickoffs, breaking up the double steal, run-downs, and all the other coordinated facets.

Coaches will find this book a quick, simplified, reference tool with which to equip their players with a complete knowledge of defensive baseball.

- **THE PASSING GAME IN FOOTBALL.** By Jack C. Curtice. Pp. 117. Illustrated. New York: Ronald Press Co. \$3.50.

OVER the years, at West Texas State, Texas Western, Utah, and now at Stanford, that delightful gentleman, Jack Curtice, has established an enviable reputation as a pass-master, and it's about time he put his ideas into writing.

A man with a rapier mind and an immaculate sense of organization, he has arranged and presented his analysis in crystal-clear, easy-reference fashion.

After explaining his philosophy of offense and the personnel required for a passing game, he steams right into the passing attack. Very clearly and fully, he expounds the running pass, the jump passes, "everybody block" passes, play action passes, and special passes—including the screen, draw, and shovel passes. With each, he carefully analyzes the responsibilities of the thrower, receiver, and linemen.

Then, without going into detail on running offense, he describes the three plays which complement his passing attack—the wedge, quick toss

to the strong side and quick toss to the weak side.

The book is rounded out with excellent sections on Curtice's varied formations, coaching the quarterback, practice sessions and drills, and advice to the beginner.

This is a real coaching book by a real idea-coach, and it will convince everyone that the passing game can move the ball consistently, thereby partially nullifying an opponent's superiority in manpower and producing an exciting brand of football.

- **NORM VAN BROCKLIN'S FOOTBALL BOOK: PASSING, PUNTING, QUARTERBACKING.** By Norm Van Brocklin. Pp. 115. Illustrated—photos and diagrams. New York: Ronald Press Co. \$3.50.

ONE of the greatest passers and kickers of this or any other day, Norm Van Brocklin closed out his career on high C last season; and it's indeed a pleasure to welcome him into the literary set. All his fabulous know-how is distilled into this highly readable and professionally technical analysis of the passing, punting, and quarterbacking games.

After an absorbing account of the development of the pass, the Dutchman delves into the fundamentals—grip, fade back, and delivery. Then he goes into pass defenses, detailing the chief alignments, their strengths and weaknesses, how to beat them, and how to protect the passer.

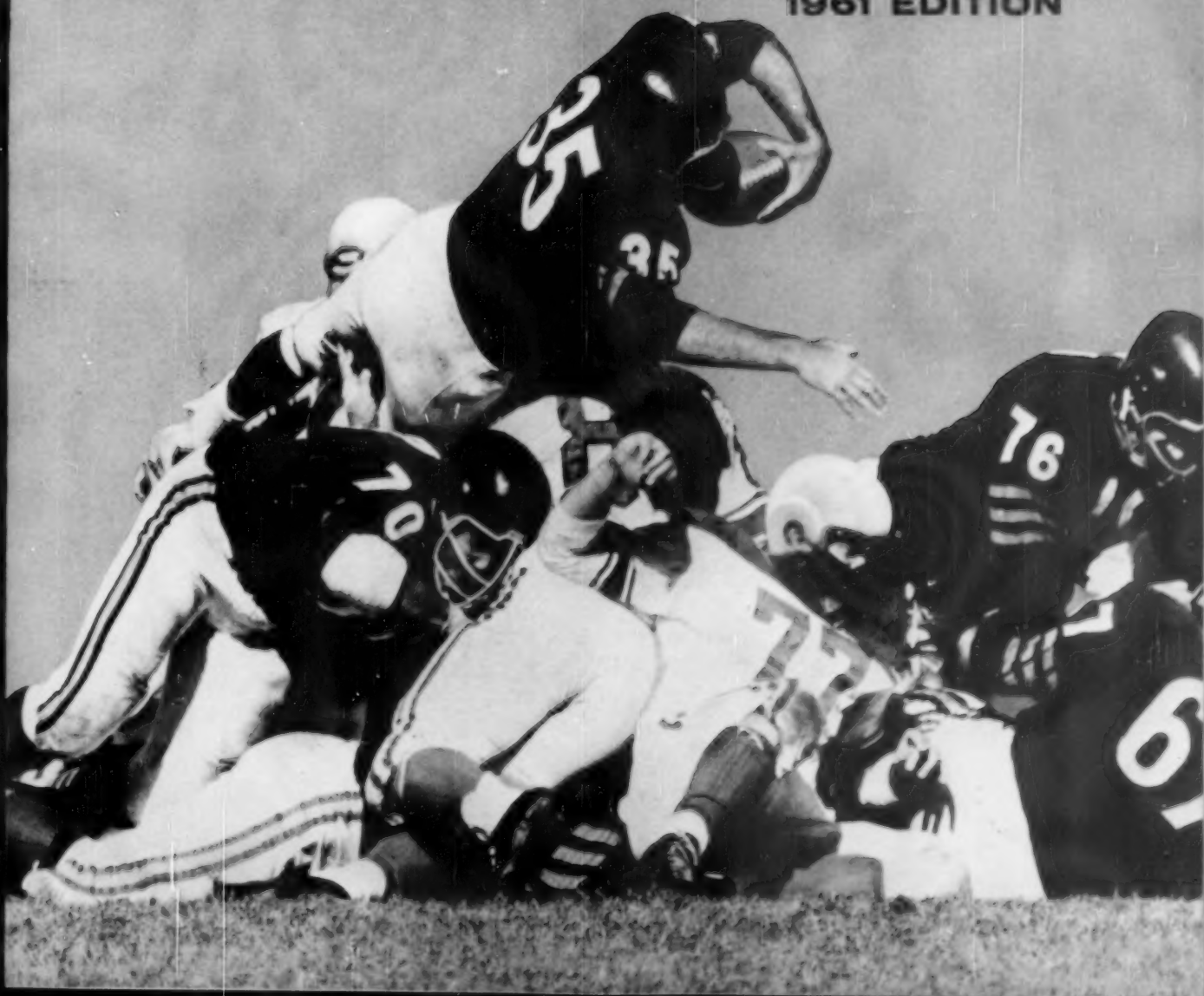
Having painted in the background, Van Brocklin then goes right to the heart of the passing game—the pass patterns and how they're executed. The individual pass routes, unit patterns, flare control, and the techniques of the receivers are all carefully expounded. Defensive backs, the problem of interceptions, and the vital matter of integrating the running and passing attacks round out the section on passing.

A chapter on the changing kicking game is followed by an analysis of the punting skills. Two interesting chapters round out the technical side of the book, "The Play Caller—Coach or Quarterback?" and "Know Your Opponent."

Throughout the book, Van Brocklin remarks most engrossingly upon the contrasting styles, the strong points, and the idiosyncrasies of the outstanding players he has played with and against.

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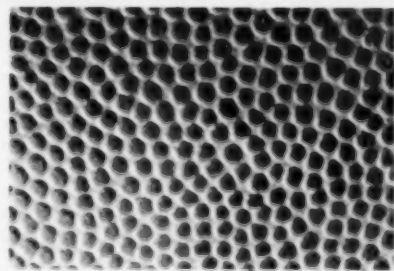


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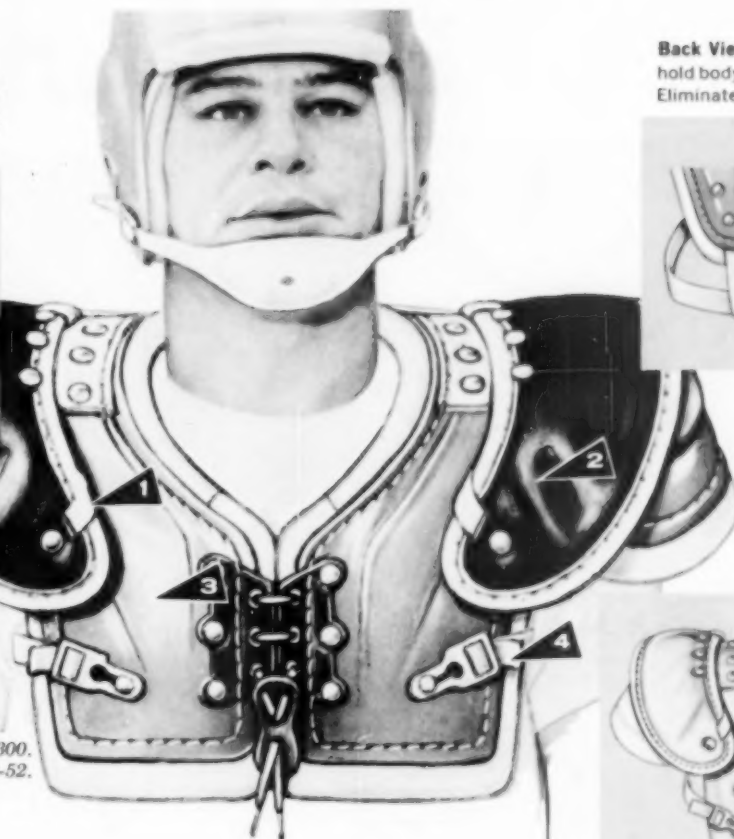
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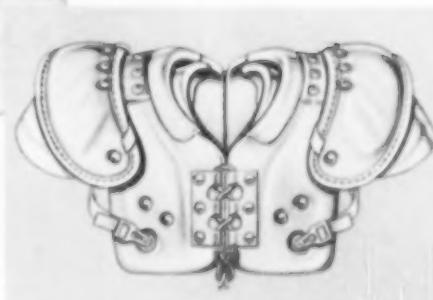
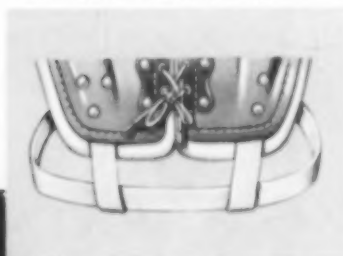
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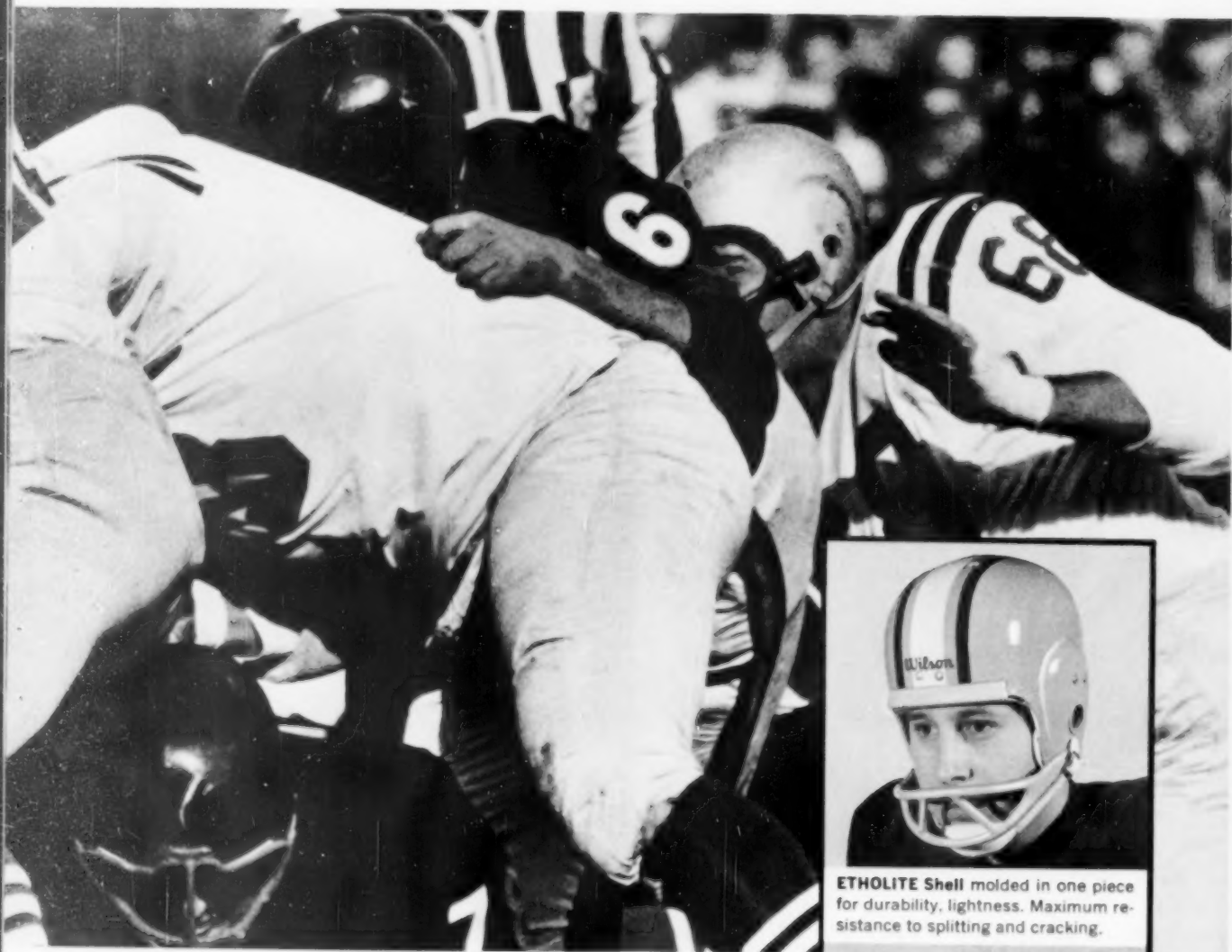


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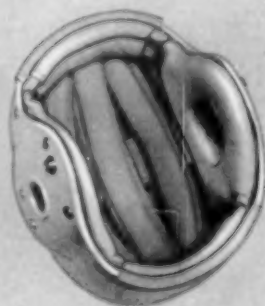
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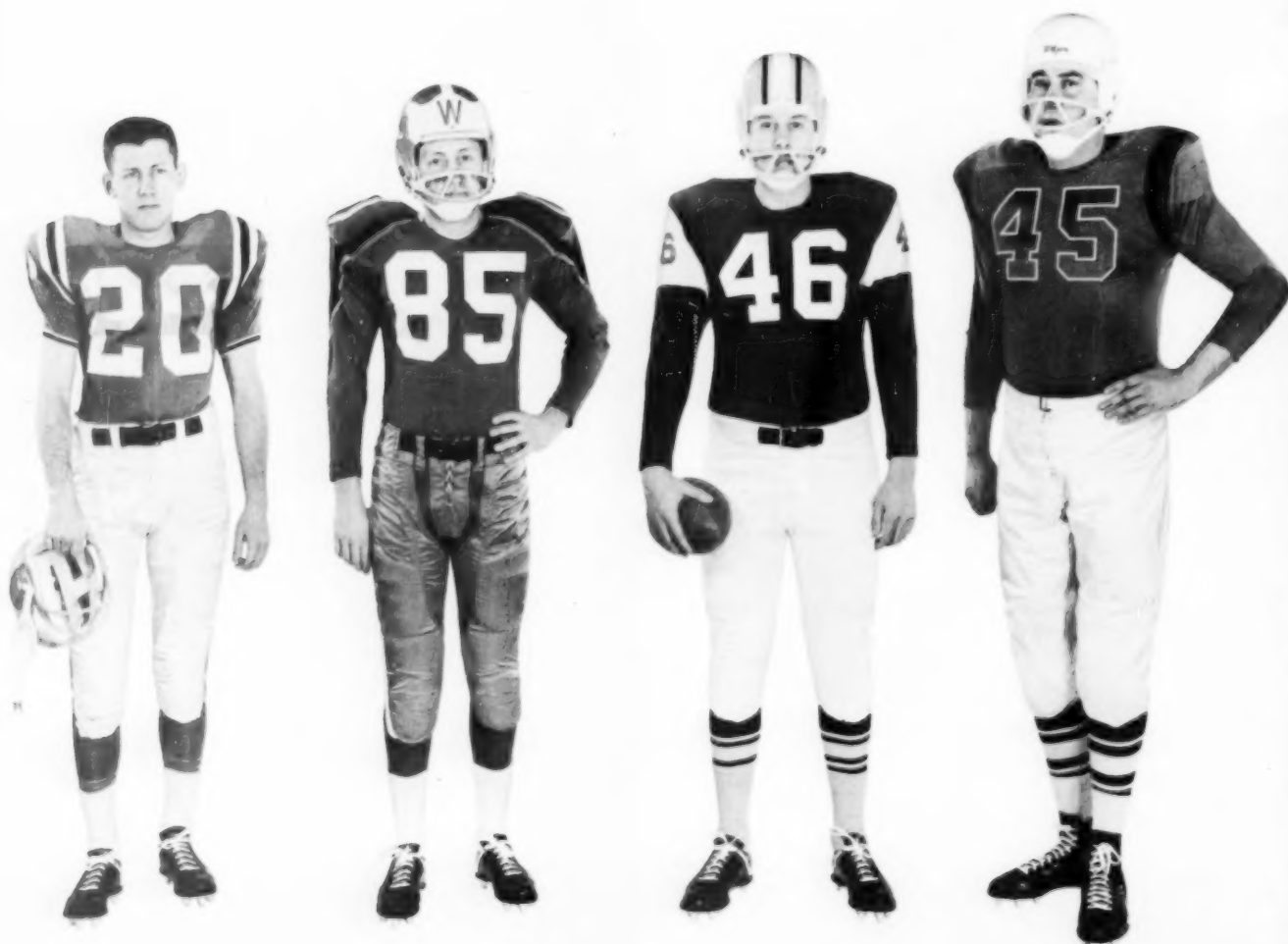
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- **TRACK TECHNIQUE:** *The Quarterly Journal of Technical Track and Field Athletics.* Edited by Fred Wilt. Pp. 32. Los Altos, Calif.: Track & Field News. \$1 per issue.

TRACK coaches interested in keeping abreast of the latest advances in technique, training, medicine, research, mental factors, and other aspects of the sport, will find this quarterly journal right up their alley.

Printed in easy-to-read type, the journal is 8½" by 11" in size and includes contributors from all over the world. The first two issues have already appeared, and both were beauties—consisting of 12 articles (each) on the many phases of the sport. Represented in the first number were authorities from Germany, Finland, Australia, and Estonia. The second issue featured contributions from New Zealand, Russia, and Australia.

A reduced rate is available for yearly subscriptions.

- **ATHLETICS (Track):** *How to Become a Champion.* By Percy Wells Cerutti. Pp. 190. Illustrated. New Rochelle, N. Y. (P. O. Box 634): SportShelf. \$5.75.

THE world-renowned coach of such super distance runners as Herb Elliott and John Landy has written an absorbing book on training for track and field. Always clear and concise, Cerutti has a sound explanation for all his revolutionary ideas on conditioning, diet, weight lifting, etc. Particularly engrossing is his chapter on movement, using animals and the different human races as examples.

- **1961 HIGH SCHOOL TRACK & FIELD ANNUAL.** Edited by Fran Errola and Dan Nash. Pp. 47. Illustrated. Los Altos, Calif.: Track & Field News. \$1.

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Shortstop feeding the ball with a sidearm throw to the second baseman.

Starting the Double Play

(Continued from page 7)

time to assure possession and get on balance before making the throw to second base. A hurried throw that bounces into the outfield is much worse than a deliberate throw that gets only one man.

The throw to the pivot man should be chest high and of the correct speed for the distance—not too hard if the play is close to the bag nor a soft lob if it's from a distance. The feeder should also try to avoid a throw that "tails off," as an underhand throw from third base is likely to do. The pivot play is difficult enough to execute without having to handle a throw that's breaking down or out due to the spin of the ball.

The infielders should work together as much as possible to get used to each other's actions and throws, not only by constantly practicing the double play but by throwing to each other whenever possible. It's not by coincidence or friendship that big-league second basemen and shortstops warm up together before batting practice and infield practice. Either by order of the manager or on their own, they loosen up together to become better acquainted with each other's movements and throws.

Every pivot man prefers one type of pivot and one place to take all throws, and all the infielders should know these preferences and try to make all throws to that spot. It takes a lot of practice and work together to learn these things and be able to do them in a game quickly and automatically.

Throws by the Third Baseman:

Whenever possible, the third baseman should field potential double-play balls near the right foot. This will put him in position to throw without the extra movement of bringing the ball across the body to the throwing position. On balls hit to his

left (toward second base), the third baseman has three choices of throws: sidearm, underhand, and the running flip.

The most common type is the sidearm throw, and it should be used whenever the third baseman has time to get set and come up to that throwing position. Naturally the ball should be fielded with both hands, if possible, to insure better balance and allow the player to get rid of the ball faster.

Especially on balls hit to his left, the third baseman should not wind up to throw, but should concentrate on a quick and accurate throw rather than a hard one. The ball should be thrown chest high and to the side of the base preferred by the pivot man.

The underhand throw is used on slow rollers or with a fast runner when the ball is fielded down low and the third baseman must throw quickly without straightening up. While this throw is faster and gets the ball to second base in a hurry, it's not the preferred throw unless absolutely necessary. The third baseman, down low, isn't on balance the way he is on the more erect sidearm throw and is more apt to make a bad throw.

The underhand throw from third base also has a nasty tendency to tail off—break downward as it nears the base, due to the downward spin of the ball. It's somewhat like a submarine pitcher's fast ball that sinks as it nears the plate. This type of throw, of course, is harder to handle and more likely to result in a bad throw than the sidearm feed made from a more erect position.

The third type of throw the third baseman can make on balls hit to his left is the running flip. If the ball is fielded on the run toward second base, the third baseman can often continue in that direction and make the throw while on the run. The throw needn't be hard, since the body momentum going in the direction of the throw will add to the speed and accuracy of the flip.

On double-play balls hit to the third baseman's right (toward the foul line), the throw can be made sidearm or overhand, depending upon how

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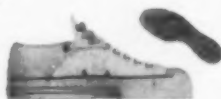
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much time the fielder has, the strength of his arm, and the height at which the ball is fielded. The third baseman may or may not take a step toward second base before throwing, depending upon his arm. The overhand throw is preferred, due to the increased accuracy and strength it provides whenever the third baseman has time to straighten up and throw.

Throws by the Shortstop:

Since more double plays are started by the shortstop than any other infielder, he should spend a lot of time working with the second baseman and practicing his throws. On balls hit near the base (up to approximately 15 feet away), the shortstop should make the underhand toss to the second baseman.

As the ball is fielded, preferably near the left foot, the shortstop should grasp the ball firmly with the bare hand and bring it out of the glove for the toss. The ball must be tossed with the bare hand only. It should not be shoved with the glove and bare hand together. This type of throw doesn't give the second baseman a good look at the ball and is also much harder to deliver accurately.

The ball should be grasped in the bare hand and, leaving the glove down in the fielding position, tossed from just above the ground. If the ball is released from near ground level, it should produce a soft toss that seems to "hang" over the base. A ball tossed from knee or waist level will be straight and hard and more difficult to control, and also more difficult for the second baseman to handle.

As the shortstop tosses the ball, he should follow it with his body, even taking a step or two toward second base after the ball has been tossed to insure getting his weight behind the toss and a good follow through. By having his weight moving in the direction of second base as the toss is made, the shortstop enhances the distance and accuracy of the toss.

On balls hit too far from the bag for the underhand toss, an underhand or sidearm throw is usually used. Being closer to second than the third baseman, the shortstop doesn't have to worry about his throw tailing off, and the ball is thus easier for the second baseman to handle. The shortstop usually makes all double-play throws to the second baseman flat-footed, with no preliminary step, thus saving time.

On balls hit deep to the shortstop's right, in the hole, a sidearm or overhand throw is usually used, since the longer throw requires more arm action and strength.

On slow-hit balls in the hole where a double play is unlikely, the shortstop should be a little more deliberate and make sure of getting the front man. He should throw to the pivot man behind the base, so he can make the force without being carried into the path of the runner.

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Throws by the Second Baseman:

Though the second baseman will usually start fewer double plays than the shortstop, his throws are generally harder to make, due to the angle and the frequent need to turn after catching the ball.

On balls hit near the bag, the second baseman uses the same type underhand toss as the shortstop. The execution is the same, and since this is the simplest type of throw it should be used whenever possible. The second baseman can greatly increase the effectiveness of the underhand toss by fielding the ball near the right foot (the foot closer to second base) and then leaning his weight toward the base for the toss.

A backhand toss can be used on balls hit too far from the base for the underhand toss and yet not far enough away for a regular throw, or on balls fielded near the bag off the left foot with the weight leaning away from the base. This is a rather difficult toss to master and should be taught only to experienced second basemen. It's a great time-saver, however, and is very effective for the toss of 15-20 feet or so.

As the ball is brought out of the glove with the bare hand, it's grasped firmly with all five fingers. With the forearm parallel to the ground, the hand is turned so the ball is facing the base and the back of the hand is facing the second baseman's body. Then, as the weight is transferred to the right foot, the ball is flipped backhanded to the shortstop, with a definite follow through of the arm and body toward the base.

On balls hit a good distance from the bag, the second baseman must use a half-pivot or body-pivot and throw. He must position his feet to face the ground ball, but should try to field the ball near the right foot.

As the ball is caught with both hands, the glove and bare hand give and the body is pivoted at the hips toward second base, with the feet remaining in their original position. As the body continues to pivot around toward second base, the ball is brought out of the glove at a position behind the right knee and the throw is made with no lost motion or delay.

This throw is made with considerable arm and wrist motion and a good follow through, and requires no wind-up. The weight should shift to the right foot as the twist and throw is made.

Not many second basemen can make the long throw from far to their left with the half-pivot. They must use a full pivot, facing the bag in order to get the ball away with any force and accuracy.

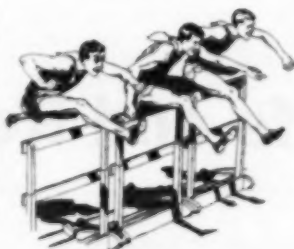
The second baseman gets into position to field the ball with his feet facing home plate. As the catch is made, he shifts the feet around to face second base by means of a hop. This throw takes more time than the half-pivot, but must be used on balls hit far to the second baseman's left where a long throw is needed.

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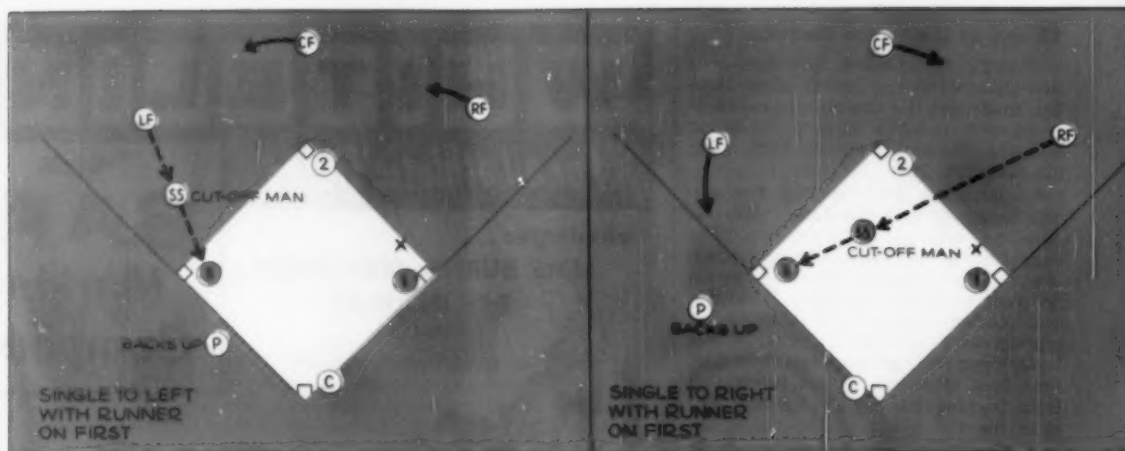
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By WILLIAM H. HATCH, Coach, Porterville (Calif.) High School

Cut-Offs and Relays

THE two most common defensive lapses in baseball are faulty cut-offs and the improper handling of relays. Though not recorded in the fielding statistics, they can be as costly as any mechanical error or offensive thrust. They invariably produce runs or allow the runners to take extra bases.

We know that boys will freeze under pressure. But they can't always be blamed for such lapses. Many coaches never take the time to develop a system of cut-offs and relays.

What system is best for the average team? Any system that clarifies assignments and does the job. But you must work on it until the players' responses become automatic.

All cut-off men must set up on a direct line between the outfielder making the throw and the target base. He should be close enough to the base to give the baseman time to decide whether to have the throw cut or allowed to go through; and yet far enough away to reap the full benefit of the cut-off when called upon to make a play at another base.

A position 30 feet in front of the baseman will suffice on most plays. By extending his arms over head and facing the outfielder, the cut-off man can present an excellent sight for the outfielder to throw through. The throw should pass through the

arms head high so that it may be easily cut, or, if permitted to go through, will reach the baseman on one bounce.

A great deal of teamwork and understanding is required between the cut-off man and the target baseman. As soon as the ball is hit, the cut-off man must move into position. An experienced player can do this on his own. The school kid may need help. The baseman can help align him by calling which way to move. The cut-off man can then quickly shuffle sideways until the baseman tells him to stop.

To minimize confusion, the cut-off man should be told what to do on every throw. As the ball approaches, the baseman should call the play *soon enough* to allow the cut-off man to react in time.

Let it go! is sufficient if the baseman wants the throw to come all the way. If he wants it cut, he must yell *Cut!* and also what to do with the ball. *Cut, third!* tells the cut-off man to cut the throw and fire it to third; or, *Cut and hold!* indicates no play anywhere—to cut off the throw so other runners won't advance.

The heaviest responsibility rests with the baseman, for he must watch the runner and throw coming to his base, he must watch the movements of the other runners, and he must make a split-second decision on what to do. Though the cut-off man should generally rely on the baseman, he should, when a throw is obviously bad or the first runner is obviously

safe, cut the throw on his own.

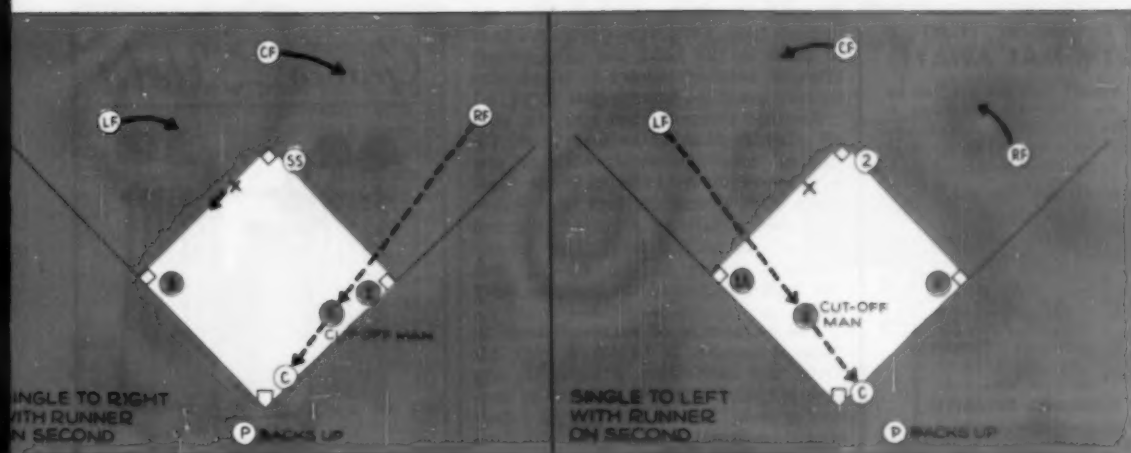
The most common cut-off plays occur at third and home. The cut-off at third is handled exclusively by the shortstop. On a single to the outfield with a runner on first, the shortstop breaks into a cut-off position, guided by the third baseman. The objective is to stop the batter from continuing to second on the throw to third, if there's no play at third.

The most difficult play for the shortstop in this situation is to get into the proper cut-off position after attempting to field a ground ball hit to his left. Only constant drilling will get him to automatically move into cut-off position instead of standing near second base.

On base hits to left field, the shortstop's cut-off position deviates from the general 30-foot rule because of the short distance between the left fielder and third base. In this situation, the edge of the infield grass could serve as a guide for the cut-off position, or about 15 feet in front of the third baseman.

On fly balls to the outfield with a runner on second base, the shortstop fulfills a cut-off responsibility similar to the above situations.

The cut-off at home may be performed by the first baseman, third baseman, or pitcher. The first baseman is in the best position to handle all cut-off duties at home because there's no need to guard first after a base hit or fly out. The major disadvantage lies in the distance he must go to the left side of the infield on



throws from left field.

To overcome this difficulty, it's possible to employ the third baseman as the cut-off man on balls hit to left field. In using the third baseman as a cut-off man, however, there's always the possibility that third will be left unguarded, allowing a runner to advance unmolested. The shortstop can generally cover for the third baseman, but if he's out on a relay, the base could be open.

Some teams use the pitcher advantageously as a cut-off man on all throws home. But the value of the pitcher lies in backing up bases, unless the fence and backstop are very close to the playing field.

The duties of the cut-off man at home are similar to those at third. He must break into position, guided by the catcher, on (1) singles to the outfield with a runner at second, (2) extra-base hits with a runner at first, and (3) fly outs with a runner on third.

The catcher has a heavy responsibility on the cut-off at home. He must watch the movements of the runners advancing to second and third as well as the runner coming home.

Another type of cut-off play exists on the double-steal attempt. With runners on first and third, the offense will often have the runner at first break for second to give the runner at third a chance to score on the throw to second.

Several cut-off methods are available to thwart this play. The best method is to break the shortstop to a position about five feet in front of second for the catcher's throw. If the runner on third breaks for home, the shortstop moves in, cuts the throw off on the run, and fires home. If the runner on third holds, the shortstop waits for the throw, then dives back to tag the runner coming into second.

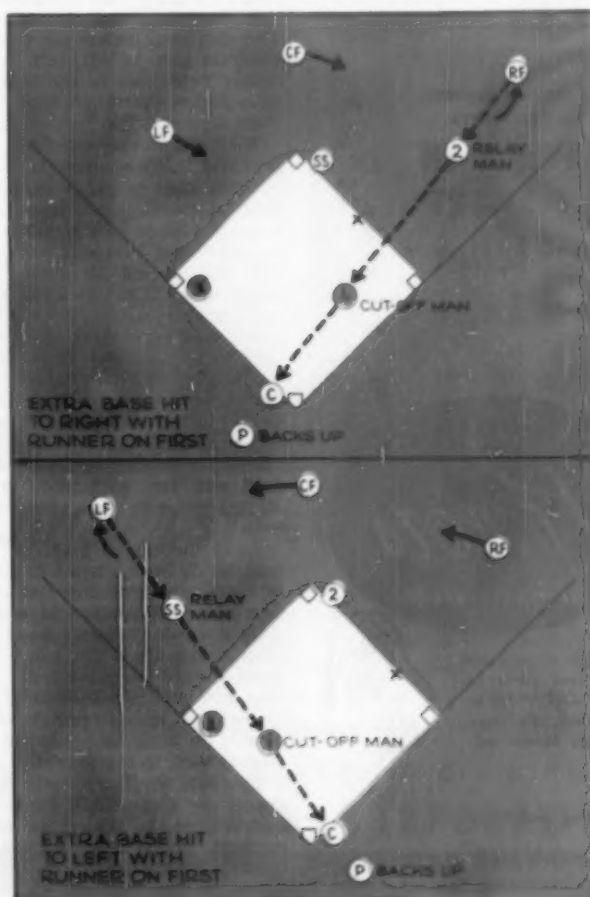
Another cut-off method places the shortstop 10 feet in front of second with the second baseman covering against the steal. If the runner on

third breaks for the plate, the shortstop will cut off the throw. Otherwise, the throw is allowed to go through to the second baseman for the tag.

Two disadvantages rule this play out for all but the most experienced team. First, it leaves too many holes in the infield should the batter be hitting; and, secondly, the closeness of

the throwing distance requires split-second timing and reaction between the shortstop and second baseman.

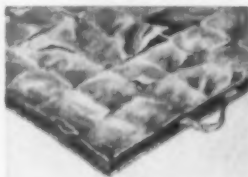
Other cut-off plays for the double steal include (1) the pitcher intercepting the throw, and (2) the shortstop or second baseman breaking in between the pitcher and second base to cut off the throw. In both of these



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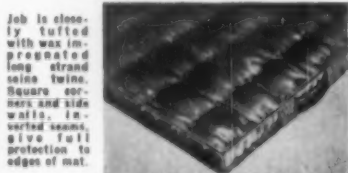
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plays, no attempt is made to play the runner from first. Thus, if the runner at third should hold, the defense has allowed another runner to move into scoring position unmolested.

Another common, but simpler, cut-off play is that at second base. On singles to left or center with no one on base or on fly balls to these same fields with a man on first, the shortstop should assume a cut-off position in front of second base. The second baseman serves as the cut-off man (in such situations) on balls to right field.

The advantage of a cut-off man in these situations is two-fold: (1) He gives the outfielders a sight to aim through; and, (2) if the throw to second is poor, he's in position to intercept it or slow it down before the runner can advance.

The prime purpose of relays is to aid the outfielder on exceptionally long throws. Outfielders should never serve as relay men for one another, unless it's dictated by some unusual situation. It's both time-consuming and inefficient. The distance between the outfielder throwing and the outfielder relaying is so short as to reduce the efficiency of the thrower's arm.

The other outfielders may aid the thrower by telling him the location of the relay man or who is the relay man.

Ninety-nine percent of the outfield relays will be the responsibility of the shortstop and second baseman. The shortstop makes the relay on extra-base hits to left, left center, and center fields; while the second baseman makes the relays from right and right center fields.

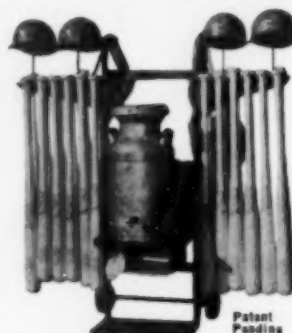
With no runner on first base, the first and third basemen could be used as relay men on extra-base hits down their respective foul lines. However, a great deal of care must be taken to see that third base isn't left unguarded and that no cut-off duties involving either of these two fielders will go unfulfilled.

As soon as a relay throw becomes apparent, the relay man must rush to his station. This position should be closer to the infield than to the outfielder in order to exploit the outfielder's stronger arm. It's usually about one-third the distance between the infield and the outfielder, in a loose alignment with the potential target base.

As in the cut-off position, the relay man holds up his arms to present an immediate target for the outfielder. The latter's throw should be no higher than the relay's man's head for most efficient handling. The relay man then spins toward his glove side, takes one step with the corresponding foot, and throws to the proper base. Or, if there's no play, he holds the ball and runs it back to the infield.

To avoid confusion, only one player should be responsible for calling the instructions to the relay man. The catcher, having the best view of the field, is the logical choice. But he's too far from the play. The shortstop or

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second baseman, depending on which is covering second, is closest to the relay man and is thus most likely to be heard and understood the best.

An excellent method for teaching cut-off and relay responsibilities is to diagram the plays on a blackboard or magnetic coaching board. Then, after the players have learned their duties in the various situations, they can be sent out on to the field to practice them.

The situation drill is excellent for this purpose. Place an entire defensive team in the field. Then fungo various types of hits to the outfield, calling the situation before each hit. As the ball is fungoed, the players line up in the cut-off or relay position, depending on the type of hit and situation.

This drill may be made more realistic and valuable by including baserunners, thus forcing the fielders to develop their own judgment and timing under game-like conditions.

Several of the more common cut-off plays are outlined in the accompanying diagrams. Two others are also worthy of mention:

Single to right or center with men on first and second: First baseman lines up possible throw home. Second baseman covers second. Shortstop lines up possible throw to third. Third baseman covers third. Pitcher breaks halfway between home and third, sizes up play, and covers accordingly. If in doubt, he always covers home.

Single to left with men on first and second: First baseman covers first. Second baseman covers second. Shortstop covers third. Third baseman lines up throw to home. Pitcher backs up plate.

Following are some general tips for the cut-off and relay men:

1. In backing up bases, make sure the pitcher gets back far enough to do some good. Many pitchers get too close to the plate or cover late, and thus aren't in the best position for overthrows or caroms off the player attempting the tag. A correct position is one at least 50 feet back of and facing the intended receiver.

2. While a relay play is developing, the relay man should glance toward

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the infield as the outfield is retrieving the ball, then stay on the alert for word information from the teammate charged with this responsibility.

3. If the ball arrives to the relay man on an in-between hop, he should permit it to continue to the infield. Any attempt to catch this type of throw often results in a carom away from its objective.

4. When in doubt about the throw getting the lead runner, don't hesitate to cut it off. The best way to break up a rally is get the second runner trying to take an extra base.

Javelin Throw

(Continued from page 9)

needed for javelin alignment.

Once this requirement has been met, there's considerable latitude about the other details of grip. Either the first or second finger can be placed around the shaft next to the cord. If the second finger is used, the index finger may be placed either along or around the shaft.

In summary, fine javelin throwers all carry the javelin diagonally across the hand, but they vary with respect to exact finger placement. It would seem best to let the candidate experiment and adopt the finger placement that gives him the greatest feeling of comfort and javelin control. The common error of the beginner is an overly tight grip. The javelin should be held only tightly enough to insure control.

Before detailed instruction begins, the candidate should be allowed several periods of orientation. He needs this time simply to get used to the javelin. No hard throws should be made; instead, there should be a series of short, easy efforts. This is the time, too, to stress safety precautions. Emphasize that the javelin is a weapon (its original purpose) and must be treated as such. The ground rules are made clear with respect to areas and direction of throw.

The candidate first learns to throw from a stand, assuming a stance that will permit maximum power to be applied to the javelin. Facing at right angles to the intended direction of throw, he places his feet about a yard apart. With experience, the distance between feet will be increased.

The body weight is shifted so that almost all of it is supported over the right leg. The right knee is flexed and the trunk is bent laterally to the right. The right arm is drawn back completely.

Javelin position is important. The point must be low, preferably about the height of the eyes, and the shaft must be in alignment with the direction of throw.

Concerning the delivery of the javelin, most coaches agree on two major points. First, the large muscles of the legs and trunk must initiate the blow, with the arm coming into action only when the inertia of the implement is already broken. Second, in the throw-

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ing motion the elbow must precede the forearm; i.e., the throw is led by the elbow.

Both of these points are entirely valid, but in actual coaching practice it's usually best not to present them directly to the athlete.

Though the big muscles of the body should strike first, followed by the arm, the average athlete who thinks in terms of this sequence will mis-time his throw. The large muscles will be spent too early, causing the athlete to drift forward over the left leg. This action results in a throw that we usually term "only arm." The most effective timing comes when the athlete thinks of the delivery as a single effort rather than as a sequence.

Again, while it's very true that the elbow must lead the arm action, direct coaching instruction can cause an artificial and broken throwing motion. Instead, it's usually best to have the athlete think of the motion as being both overhead and taking place in the same vertical plane.

The elbow should particularly stay in the vertical plane; if it does, it will automatically lead the throw. In other words, this procedure can effect the desired action and, at the same time, avoid some of the side-effects that usually accompany a more direct coaching approach.

The run or approach has two parts. The first part constitutes an effort to gain momentum. The purpose of the second part—the steps—is to place the athlete in effective throwing position. It's important that neither the coach nor athlete lose sight of this simple purpose. Too often the steps are seen as a mysterious and magical device.

A generation of two ago most American javelin throwers hopped into position. Eventually, we took note of the fact that the Finns, who were then dominating the event, ran rather than hopped into throwing position. Attention turned to the so-called Finnish steps, and nearly all throwers tried to learn them. In essence, what the Finns did was to toe out the right foot increasingly until the body was turned sideways.

The standard approach to the javelin steps is as follows:

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On the count of "one," the left foot strikes a checkmark and the javelin is drawn back.

On "two," the right foot toes out about 45°.

On "three," the left foot turns slightly.

On "four," the right foot toes out far enough to line up the body in throwing position.

On "five," the left foot moves forward and the javelin is delivered.

By the count of "four," the body is turned enough so that this step becomes a cross-step.

There is, of course, nothing magical about the five-count system; fewer or more steps could be used. With a fewer number of steps, there would be greater momentum but more difficulty in achieving sound position. With a greater number of steps, position would be easier to obtain but the additional amount of sideways running would reduce speed. All in all, experience indicates that the five-count seems to be optimum for most throwers.

The beginner first learns his steps by walking through them slowly and deliberately. He should understand clearly the rationale of what he's doing. The steps serve a simple purpose. They bring about a transition from normal running position to a position in which power can be applied to the javelin.


As the steps become familiar, the athlete begins to jog rather than walk through them. Easy throws are made. During this early stage, the candidate learns to add the follow-through to his throw. He's taught to reverse so that the right toe points toward the direction of javelin flight. This training will make for a stable finish and prevent much fouling.

With further time and learning, jogging gives way to running. A temporary checkmark of about four to six strides will be needed. In this way the athlete can approach the "one" count with both momentum and rhythm. Later on, in accordance with the candidate's progress, the length of the run will be increased and greater speed will be used.

Once the thrower acquires a general idea of the nature of his event and learns some basic points of technique, a good portion of his work-out will consist of full-scale throws. With the help of his coach, he can then turn his attention to those points of form most in need of improvement. Several patterns of errors are common to nearly all beginners.

The cross-step (count of "four") is almost always badly executed. In sharp contrast to the full and sweeping cross-step of the expert, the beginner makes a very short effort. An inadequate cross-step makes it impossible to obtain an effective power position.


This short step usually has its roots in tension of the upper body and failure to carry the body weight sufficiently low. The novice executes the steps while high on his toes, whereas the veteran tends to lower his center



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THIS is the second of three field event articles by Dr. Frank Ryan, erudite Co-Coach of Track and Field and a Research Psychologist in the Department of Health at Yale University. A former school-boy, college, and world champion in the shot put, Dr. Ryan is a lecturer in great demand and has recently produced a superb 16-mm. instructional film series on the track events (which were reviewed last month). The author's first article (last month) covered the discus, and his third piece next month will be on the shot put.

of gravity and raise his knees. An effective cross-step is so essential to successful throwing that it warrants special attention in the form of drills. A particularly good drill is one in which the athlete executes a series of cross-steps over a distance of 40 or 50 yards.

Trouble with the all-important javelin alignment plagues all beginners. With respect to the vertical plane, the tendency is always for the javelin point to rise too high. Hence, the angle of the javelin shaft becomes steeper than the actual trajectory of the mass. Air resistance is great, with energy being expended uselessly in lifting the javelin. Forward velocity is quickly lost, and the javelin suddenly drops.

The coach can combat this tendency by constantly stressing a low javelin point. On the "one" count, the javelin is drawn back in such a way that the point crosses the letters of the uniform. Prior to delivery, an effort should be made to keep the point from rising above the thrower's head.

Failure to align the javelin with reference to the horizontal plane also involves one direction. The point drifts away from the body so that the javelin aims far to the right of the intended direction of throw. A javelin thrown in this faulty alignment loses much of the distance to which its velocity entitles it. The athlete's subjective impression of lateral alignment is untrustworthy, and for this reason he badly needs an observer who can check for him.

After experimenting, the athlete and his coach may decide on fewer or more steps than the usual five-count style. The seven-count used by some throwers amounts to a double cross-step.

The essential thing is that a decision be made and, once made, that it be adhered to firmly. The same count pattern must be practiced over and over again until it's absolutely dependable. The athlete must not improvise during or just prior to a meet. He must be certain of exactly what he's going to do.

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Placing of the checkmarks to avoid fouling in competition should be a simple process. It's merely a matter of determining how much distance the steps actually consume. An additional margin is allowed for safety and the measurements are transferred to the throwing area.

How much and how often should the athlete throw? In general the answer is, "A lot more than we used to think." Like any other athletic event, the javelin throw must be practiced if there's to be proficiency. With proper javelin alignment and correct use of the big muscles of the trunk and legs the javelin can be thrown safely nearly every practice day.

During the competitive season, the last throwing should take place on Wednesday prior to Saturday's meet. The program should, of course, include supplementary exercises in the form of weight training, running, and special drills.

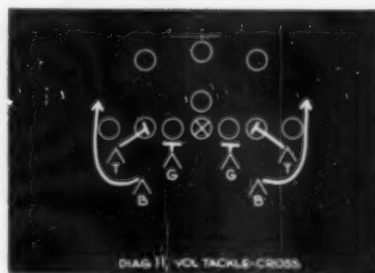
Like most other activities, the javelin yields the greatest achievement and satisfaction only through a systematic approach and hard work.

Loose 6 Battery

(Continued from page 51)

and smash hard into the offensive ends.

Thus, the poor offensive tackle, who's an uncovered lineman to begin with, gets clobbered from three different angles. He's met head-on by the linebacker in Volunteer Regular, he's hit from the inside-out by the guard in Volunteer Guard-Cross, and he's hit from the outside-in by the defensive tackle in this maneuver.



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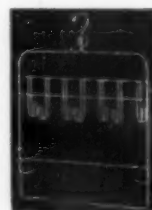
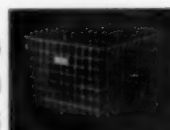
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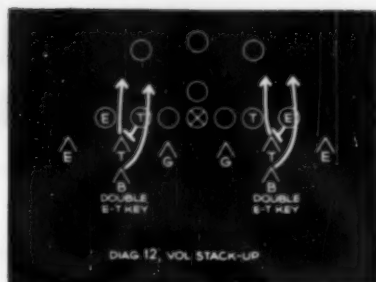
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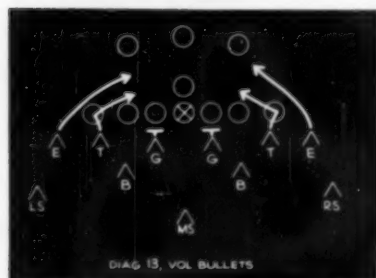
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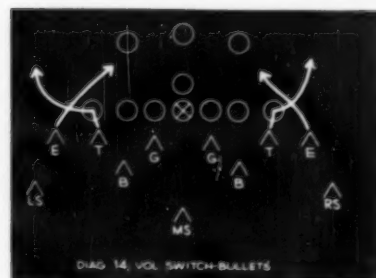
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Vol Bullets (Diag. 13) is an excellent stunt against a split T that likes to throw that halfback running pass quite a bit. We used this stunt two years ago off our Oklahoma Battery, and have found it just as effective from this Loose-6 Battery.



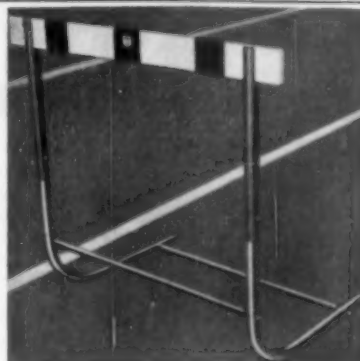
Everybody plays Volunteer Regular except the two tackles and two ends. At the snap, the defensive tackles smash into the offensive ends from the inside-out as always, but they don't stay with the ends for any length of time. They go smashing down the line of scrimmage looking for the quarterback. When and if they find him, they hit him high and hard, thus forcing him to pitch-out very early.

The defensive ends "bullet" or crash to the point where the near halfback puts his hand on the ground. This puts the defensive end in fine position to clobber the offside halfback just as he receives the pitch-out from the quarterback. Thus that dangerous pass will never get thrown.



Vol Switch-Bullets (Diag. 14) is exactly the same except that the tackle flares out to the outside instead of head-hunting the quarterback. This offers greater protection against a team with a good quick-pitch series to the outside.

(To be concluded next month)



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- 75 WAYNE (28)**
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- 76 WELLS LUMBER (18)**
Booklet, "Multi-Use, Money-Making Gym Floors"
- 77 WEST CHEMICAL (27)**
Information on School Sanitation and Maintenance
- 78 WESTERN ST. COLLEGE (78)**
Information on Summer Session Workshops
- 79 WHIRL-A-BATH (74)**
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- 80 WIDE-LITE (39)**
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- 2 INVENTORY CONTROL SYSTEM (38)
- 3 TUBULAR STEEL HURDLE (38)
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